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In this issue:

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The Kansas Economy

Economic Indicators

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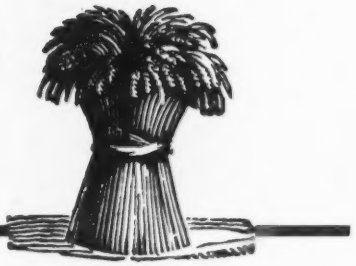
The Potential Impact of Deregulation of Railroad Rates on the Kansas Wheat Market



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Introduction

The most significant current development in the transportation sector is deregulation. The Airline Deregulation Act of 1978 and the Motor Carrier Act of 1980 deregulated the airline and trucking industries. The Harley O. Staggers Rail Act of 1980 substantially deregulated the rail industry. The law has a number of provisions intended to raise railroad profitability. The most significant aspect is the greatly increased freedom to increase rail rates.

During the rail deregulation debate, proponents argued that regulation is partially responsible for low rates of return in the rail sector. It prevented railroads from reacting quickly to intermodal competition and to changing market conditions in general. Opponents argued that railroads still possess monopoly power in many markets and that continued rate regulation is necessary to protect "captive" shippers. No precise definition of captive shipper exists, but it is generally considered to include grain shippers on branch rail lines. It can be argued that, in the long run, there is no such thing as a captive shipper since marketing and locational adjustments are possible which would partially or wholly offset the effect of higher rail rates. However, in the short run, rail deregulation may result in a substantial redistribution of income from grain farmers and shippers to railroads.

Objectives and Methodology

The main objective of this study is to determine the impact of deregulation on rail rates in the Kansas wheat market. The popular impression is that rail rates will rise. This view implies that regulation has resulted in lower rail rates than would have otherwise occurred. However, the ability to profitably raise rates depends on the degree of competition in the market. In the Kansas wheat market, railroads face a variety of competitive pressures. There is intermodal competition from truck-barge combinations on long-haul movements. There is also interregional competition. For example, some of the major markets for Kansas wheat are flour mills located in the eastern states. In order for Kansas wheat producers to compete with other hard winter wheat production areas, railroads (and other carriers) serving the Kansas wheat market must price their services accordingly. Also, transportation rates must be low enough to allow U.S. wheat producers to compete in the export market. Empirical evidence indicates that the U.S. would experience a large decrease in wheat exports if the U.S.-delivered price rose above the world price. Therefore, transportation rates must be low enough to allow U.S. wheat producers to compete with other wheat exporting nations.

This type of international competition (in addition to inter-regional competition) in the wheat market is an important constraint on domestic and local transportation rates. However, the principal focus of this paper will be the intermodal competition for shipping Kansas wheat in light of rail rate deregulation and the possibility of subsequent rail rate increases.

The 1977 Kansas wheat market was selected to investigate the potential for rail rate change resulting from deregulation.[1] Thus the supply and demand locations are unique to that year. Also, the quantities shipped between supply and demand points pertain to 1977.[2] Rail rates are compared to competing modal rates for the major movements in this market to determine if railroads can change rates without losing traffic to competing modes. Since cost minimizing shippers will select the least cost mode, the ability of railroads to raise rates depends on the excess of competing modal rates above rail rates.

The 1977 Kansas wheat market can be summarized as follows.[3] In 1977, 291.4 million bushels of wheat were shipped from Kansas country grain elevators. About 70 percent went to terminal grain elevators in Atchison, Kansas City, Topeka, Salina, Hutchinson, and Wichita, Kansas. The remainder was shipped directly to Gulf of Mexico ports for export or to Kansas City flour mills. Of the wheat shipped from Kansas terminal elevators, about 55 percent went to Gulf of Mexico ports for export, 17 percent to flour mills in the east, and the remainder went to Kansas, Missouri, and Oklahoma flour mills. Thus, the major destinations for Kansas wheat are Gulf of Mexico ports, flour mills in the east, and commercial bakeries in the east (ultimate destination of locally milled wheat).

In order to compare modal rates for the above cited destinations of Kansas wheat, the origins must also be specified. To simplify, a point central to each of the major supply area(s) of each terminal city was designated as an origin.

Rail rates for the principal Kansas wheat movements are labeled schedule X-343 (effective November, 1977) and were obtained from sources in the Kansas grain trade. Barge rates and truck rates were obtained from [1] and [11] respectively.[4]

Empirical Results—Export Movements

Table 1 contains rail rates and competitive modal rates for a sample of Gulf of Mexico export movements in the Kansas wheat market. The terminal elevators at Wichita obtain most of their wheat supply from south central Kansas. The major Gulf destination is Houston. The main alternatives to rail shipment are direct truck shipment to Houston and truck-barge shipment to New Orleans via the port of Catoosa, Oklahoma on the Arkansas River. The rail rate is 16 percent below the direct truck rate to Houston. The truck-barge rate is 3-15 percent below the rail rate.

Actually, the excess of the rail rate over the truck-barge combination is somewhat overstated. Barge rates are subject to substantial variation depending on weather and competition for barges. Reduction in water levels due to hot summer weather can result in increased rates. Competition for barges is especially strong in the fall due to the heavy shipment of corn and soybeans on the Mississippi River. In turn, this competition results in higher barge rates for wheat on the Arkansas River as well.

There are other deterrents to use of the truck-barge combination to New Orleans. Due to the large increase in export demand for corn and soybeans, export elevators at New Orleans have chosen to specialize in handling these grains. Thus they have obtained the advantages of product specialization, including reduced handling cost, better access to market information, and established contacts with suppliers. They do not wish to absorb the high handling cost of barges partially loaded with wheat due to low water on the Arkansas River.

Given the qualifications to the truck-barge rate to New Orleans, it is still not unreasonable to presume that it represents a deterrent to an increase in rail rates made possible by deregulation.

The terminal grain elevators at Hutchinson, Kansas obtain the majority of their wheat from south central and southwest Kansas. The principal port destination is Houston. For wheat originating in south central Kansas, the intermodal competitive rates are the same as for wheat shipped from Wichita terminals. Therefore, the same comments as above apply to these movements.

For wheat originating in the southwest part of the state, the alternatives to rail shipment are direct truck shipment to Houston and truck-barge shipment to New Orleans via the port of Catoosa. The rail rate is 31 percent below the truck rate, but only 6-16 percent below the truck-barge rate to New Orleans. As mentioned above, the actual truck-barge cost may be somewhat higher part of the time. The potential intermodal competition, however, appears to limit the potential for rail rate increases though not as much as for wheat originating farther east.

Terminal grain elevators at Kansas City and Atchison, Kansas obtain some wheat from every part of the state except the southwest. However, the greatest supplies come from the north central region. The major port destination is Houston. The main alternatives to rail shipment are direct truck shipment from north central Kansas to Houston or truck-barge shipment to New Orleans via the Missouri and Mississippi Rivers. The rail rate is 20 percent below the truck rate. The truck-barge rate is 3-16 percent below the rail rate. However, barge transport on the Missouri River has all the same difficulties as those on the Arkansas for essentially the same reasons. In addition, the northern sections of the Missouri or Mississippi may freeze in some years. Therefore, the actual cost of the truck-barge movement is higher for part of the year. Again, however, the main point is that truck-barge competition appears to offer limited capacity for rail rate increases due to deregulation.

The principal supply areas of the Topeka grain terminals are north central and northwest Kansas. The major port destination is Houston. For wheat originating in the north central region, the intermodal competitive movements and rates are the same as for wheat shipped from Kansas City. Therefore, the same comments apply to these movements.

For wheat originating in northwest Kansas, the alternatives to rail shipment are direct truck shipment from the area to Houston or truck-barge movement to New Orleans via the Missouri and Mississippi. The rail rate is 20 percent below the truck rate. The truck-barge movement is 1-11.5 percent below the rail rate. Once again the actual truck-barge rate is higher than the rate in Table 1 for a portion of the year. However, the potential truck-barge competition would seem to offer railroads limited potential for rate increases.

The principal supply areas for the Salina grain terminals are north central and central Kansas. The major port destination is Houston. The intermodal competitive movements and rates for north central origin wheat have been discussed above. With respect to the central region, the alternatives to rail shipment are direct truck shipment to Houston and truck-barge shipment to New Orleans. The rail rate is 22 percent below the truck rate. The truck-barge rate is 0-14 percent below the rail rate. Again, truck-barge competition appears to offer little room for rail rate increases.

Empirical Results—Domestic Market Movements of Wheat

The rates for these movements are in Table 2. Approximately 25 percent of the wheat shipments of the northern Kansas terminal grain elevators are to U.S. milling locations east of the Mississippi River. One of the major eastern destinations of wheat shipped from Kansas City-Atchison is Culpepper, Virginia. One of the alternatives to rail shipment is direct truck shipment from Kansas City supply areas to Culpepper. Another alternative is truck shipment to Kansas City combined with barge shipment from Kansas City to Pittsburgh and then truck shipment to Culpepper. The rail rate is 38 percent below the truck rate. The truck-barge-truck combination is 0-11 percent higher than the rail rate. The actual truck-barge-truck rate is higher part of the year for reasons previously mentioned. However, the potential intermodal competition is likely to deter rail rate increases.

Another major wheat destination of Kansas City grain terminals is Statesville, North Carolina. One alternative to rail shipment is direct truck shipment from Kansas City supply regions to Statesville. Another alternative is truck shipment to Kansas City combined with barge shipment from Kansas City to Knoxville, Tennessee and truck shipment to Statesville. The rail rate is

37 percent less than the truck rate and 6-19 percent less than the truck-barge-truck combination.

Chattanooga, Tennessee is another major wheat destination of Kansas City grain terminals. One alternative to rail shipment is direct truck shipment from Kansas City supply areas to Chattanooga. Another alternative is truck shipment to Kansas City coupled with barge shipment from Kansas City to Chattanooga. The rail rate is 31 percent below the truck rate. The truck-barge rate is 10-22 percent below the rail rate.

St. Louis, Missouri is also a major wheat market for Kansas City grain terminals. The alternatives to rail shipment are direct truck shipment and truck-barge shipment. The rail rate is 7.7 percent below the truck rate, and the truck- barge rate is 5-14 percent below the rail rate. As stated above, the actual barge rates are higher than those in Table 2 for part of the year. However, potential intermodal competition on all these movements appears to permit little capacity to raise rail rates.

Culpepper, Virginia and Chattanooga are major markets for Topeka grain terminals. Culpepper is the principal eastern milling market for Salina grain terminals. North central and northwest Kansas are the major supply regions for Topeka; for Salina, central and north central Kansas. The same general pattern of relative modal rates emerges on all these movements. The rail rate is substantially below the truck rate, but the truck-barge rate is either somewhat above or below the rail rate.

In summary, it appears that potential truck-barge competition would prevent substantial rail rate increases on wheat shipped from northern Kansas to eastern U.S. milling locations.

Thus far the analysis has demonstrated that railroads cannot substantially raise their rates without losing traffic, assuming shippers select the least cost mode. However, the impact on rail revenue depends on how much traffic railroads lose. Thus, if higher rail rates more than offset reduced traffic, revenues will increase. Two recent studies have determined that increased rail rates will reduce rail revenue in the southern Kansas-Oklahoma wheat market (see 5, p. 20 and 8, p. 28). This conclusion is based on several important assumptions. One of the most important is that shippers select the least cost mode. Research has demonstrated that in the case of storable goods with relatively stable demands like wheat, relative modal rates are the primary factor in the modal selection (see 7, p. 220).

Table 1
Wheat Transport Rates—Selected Kansas Origins to Gulf of Mexico Ports*

Kingman, Kansas to Houston or New Orleans (rail transit at Wichita)	
Rail to Houston	93.5
Truck to Houston	111.2
Truck-barge to New Orleans	79.2—90.4
Sublette, Kansas to Houston or New Orleans (rail transit at Hutchinson)	
Rail to Houston	92.5
Truck to Houston	134.4
Truck-Barge to New Orleans	98.8—110.1
Beloit, Kansas to Houston or New Orleans (rail transit at Kansas City)	
Rail to Houston	103.0
Truck to Houston	129.1
Truck-Barge to New Orleans	86.7—99.9
Colby, Kansas to Houston or New Orleans (rail transit at Topeka)	
Rail to Houston	123.0
Truck to Houston	153.4
Truck-Barge to New Orleans	108.8—121.8
Ellsworth, Kansas to Houston or New Orleans (rail transit at Salina)	
Rail to Houston	95.5
Truck to Houston	123.2
Truck-Barge to New Orleans	82.0—95.0

*Rates are in cents per hundred weight (¢/cwt.).

Another important assumption of these two studies is that the appropriate supply of trucks and barges will be forthcoming if railroads raise rates. This is a reasonable assumption. There are no regulatory barriers to entry because grain trucking and investment requirements are relatively low. In addition, almost all trucking costs are variable so that trucking supply can adjust fairly easily to demand changes. The same is generally true of the barge industry. There are no regulatory barriers to entry, and investment requirements are low relative to railroads though higher than trucking. Since the way is provided at public expense, most barge costs are variable. Thus, barge companies can readily adjust supply to changes in demand. The barge industry is characterized by a relatively large number of small firms, and the same is also true of grain trucking.

The market circumstances of the above cited studies are very similar to this one. The year of analysis, region, transport rates, railroad companies, final markets, and competing modal alternatives are all quite similar to this study. Thus it appears safe to assume that significant rail rate increases in the Kansas wheat market will reduce rail revenue.

It could be argued that, if railroads raise rates, competing modes might raise rates also resulting in increased rail revenue. This is unlikely to occur given the low economic and regulatory barriers to entry in the grain trucking and barge industries.

Empirical Results—Domestic Market Movements of Flour

About 25 percent of the wheat shipments from Kansas grain terminals went to flour mills in Kansas and Kansas City, Missouri. This wheat is milled into flour, and most is sent to large cities in the eastern United States. Most of the flour milling capacity is concentrated in northeast and south central Kansas. Flour mills in the northeast are served primarily by the northern grain terminals of Salina, Topeka, and Kansas City-Atchison. The south central mills obtain most of their wheat from Hutchinson and Wichita. The largest single concentration of milling capacity is in Kansas

City. Table 3 contains competitive modal rates for flour shipped from Kansas City to various large eastern cities.[8]

Intermodal competition in the transport of flour is much different than the transport market for wheat. The notable difference is that barge transport cannot readily be adapted to ship flour in bulk. Therefore, intermodal competition is much stronger in the wheat market than the flour market. As a result, flour rates are much higher than wheat rates for comparable movements (see 2, p. 14).

An examination of Table 3 reveals that railroads have priced flour slightly below the cost of potential trucking competition. The rail rate is below the truck rate for Chicago, Philadelphia, and Miami by 13.5 percent, 8.3 percent and 12.4 percent, respectively. For Detroit and Cleveland, there is virtually no difference between truck and rail rates. Therefore, it seems unlikely that flour rail rates will increase significantly due to deregulation assuming that flour shippers select the least cost mode.

Conclusions

The major conclusions can be summarized as follows.

1. Deregulation will not produce significant rail rate increases in the Kansas wheat market. Rail rates are marginally below competing modal rates and substantial increases would result in loss of traffic and revenues. Therefore, deregulation will not result in a substantial redistribution of income from farmers and grain shippers to railroads.

2. Railroads might be able to raise rates and increase revenues in the short run because of lack of sufficient truck and barge capacity that shippers would demand in an attempt to reduce their cost. However, railroads would lose revenue in the long run given the low barriers to entry in the grain trucking and barge industries. Railroads realize this and take it into account when adopting long-run pricing strategy. Also, all transport rates will continue to increase due to *cost* increases experienced by rail, truck, and barge companies. Rail rates, however, will not increase significantly due to *deregulation.*

The above conclusions were obtained by holding a number of important factors constant. For example, it has been argued that deregulation of the trucking industry will have important impacts on rail rates for agricultural commodities. The conventional wisdom envisions the following scenario.

1. Free entry into the trucking industry will result in a substantial decline in trucking rates.
2. Railroads will reduce rates on high-valued manufactures to meet trucking competition.
3. In order to maintain profitability, railroads will raise rates in agricultural markets where they have the dominant share of the traffic.

However, current research indicates that the trucking industry is already competitively organized and that free entry will not significantly lower rates

Table 2
Wheat Transport Rates—Northern Kansas to Eastern U.S. Milling Locations*

Beloit, Kansas to Culpepper, Virginia (rail transit at Kansas City)	
Rail	146.5
Truck	237.5
Truck-Barge-Truck	146.7—162.3
Beloit, Kansas to Statesville, North Carolina (rail transit at Kansas City)	
Rail	128.5
Truck	204.6
Truck-Barge-Truck	136.9—153.0
Beloit, Kansas to Chattanooga (rail transit at Kansas City)	
Rail	113.0
Truck	163.4
Truck-Barge	88.3—101.9
Beloit, Kansas to St. Louis (rail transit at Kansas City)	
Rail	80
Truck	86.7
Truck-Barge	68.7—75.9
Colby, Kansas to Culpepper, Virginia (rail transit at Topeka)	
Rail	168.0
Truck	261.5
Truck-Barge-Truck	168.6—184.2
Colby, Kansas to Chattanooga (rail transit at Topeka)	
Rail	134.5
Truck	187.4
Truck-Barge	110.2—123.8
Ellsworth, Kansas to Culpepper, Virginia (rail transit at Salina, Kansas)	
Rail	148.0
Truck	232.3
Truck-Barge-Truck	141.8—157.4

*All rates are in cents per hundred weight (¢/cwt.).

Table 3
Flour Transport Rates—Kansas City to Selected Destinations*

Destination	Rail	Truck
Chicago	119.0	137.5
Cleveland	195.5	193.3
Philadelphia	240.5	262.3
Detroit	182.5	180.8
Miami	252.0	287.7

*Wheat origin assumed to be Beloit, Kansas. All rates are in cents per hundred weight (¢/cwt.).

(see 4, p. 39). Also, the cross price elasticity of rail and truck transport of manufactures is less than 1. This means that railroads could raise rates on manufactures and not lose significant traffic to trucks (see 4, p. 39). It is possible that trucking deregulation may lower truck rates somewhat through increased backhauling. Measurement of this potential impact must await further research. However, even if backhauling does reduce truck rates, it is unlikely that railroads will be able to offset any revenue loss in other markets by raising wheat rates. This action would only reduce revenue from wheat traffic. Thus, it is unlikely that trucking deregulation will have much impact on rail rates in the Kansas wheat market.

The rail deregulation law provides for expedited abandonment decisions and contract rates for large scale shipment of grain. Some have argued that these provisions of the law will strengthen the marketing position of terminal elevators relative to country elevators and that rail service to country locations will deteriorate. Proponents of this view argue that railroads will abandon the transit rate structure after deregulation. Pressure to do so will come from the desire to cut costs by abandoning some branch lines. Also the rail deregulation law prohibits rail rate bureaus from setting joint rates after January 1, 1984. This may result in inter-railroad rate competition on large scale movements from terminal elevators.

It can also be argued that the transit rate system will survive deregulation. Railroads have achieved dominance and high revenues relative to costs with the current elevator system and the transit rate structure. Terminal elevators obtain their wheat supplies over a broad geographic area served by the country elevator system. Railroads have maximized revenue by capturing the traffic at these country points and granting transit rates for movement through terminal locations. Also inter-railroad rate competition on large scale movements from terminals may not occur. Competing modal rates on these movements are very high, and there is little incentive for railroads as a group to reduce rates. Presumably railroads know the revenue consequences of competitive rate reductions in a market characterized by mutual interdependence and relatively homogeneous service.

The conclusions of this paper are given credence by recent pricing behavior of railroads in the Kansas wheat market. For example, railroads have had the authority to enact higher peak season wheat rates since the passage of the 4R Act in 1976 (Railroad Revitalization and Regulatory Reform Act). To date, none of the railroads serving Kansas has exercised this authority. Since the passage of the Staggers Rail Act in October 1980, railroads have negotiated a limited number of contracts providing lower rates for high volume shipment from Atchison and Kansas City to Gulf of Mexico ports. Also since October 1980, rail rates on all commodities as a whole have increased only in direct proportion to increases in rail costs.

Footnotes

1. This market was selected because an extensive study of Kansas wheat movements was conducted in 1977 by the Economics Department at Kansas State University.
2. Selection of 1977 does not sacrifice generality. The major movements in the 1977 Kansas wheat market are essentially the same as those found in previous studies. See (9 and 10).
3. For more detailed information see (3).
4. Barge rates prevailing in 1977 were closely tied to Waterways Freight Bureau Grain Tariff No. 7. These rates are published in (1). The I.C.C. ordered cancellation of this tariff in February, 1976. However the tariff continued to serve as a benchmark for the quoting of rates. Sources in the barge industry indicated that during 1977 the average range of barge rates was between 150% and 200% of the benchmark rate. The barge rates resulting from these percentages will represent the average range of barge rate in this study.

   Truck rates were obtained by using trucking distance cost functions from (11). Given the low margin on unregulated trucking of grain, accuracy is not greatly sacrificed by assuming rates equal to costs.
5. The flour rail rates are those in effect May, 1977. See (2, p. 14) for more discussion of flour rates from Kansas City to eastern locations.
6. A more extensive version of this paper for professional economists will appear in the *Journal of Economics* (M.V.E.A.), Volume VII, 1981 (forthcoming, Fall, 1981).

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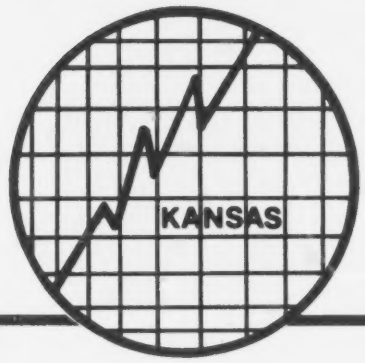
The Kansas Economy



General Business

Continuing anxiety colored the economy in the first three months of the year. Various sectors appeared to put out feelers to see whether to make any major expansionary pushes, but no one wanted to go too far. Still, high interest rates no doubt encouraged the wary to hold back. The businesses that were uncertain about how economic factors would affect their income weren't eager to commit themselves to high interest loans that might impair the businesses' flexibility.

Although President Reagan's first congressional victory on the budget cuts had come by February, no one was certain how the economy would react. And although interest rates eased downward, it was clear by April that the rates would head back up if demand rose considerably.

Recently available data on the first quarter of 1981 show healthy signs that the economy is strengthening, but many of the nation's biggest business components were still feeling the effects of economy-wide uncertainty. For example, the gross national product grew an inflation-adjusted 6.5 percent on an annual basis, and productivity (production per worker hour) rose at a seasonally adjusted annual rate of 3.6 percent. A fair amount of that productivity gain is probably attributable to businesses' reluctance to rehire laid-off workers.

Meanwhile, sales of new, single-family homes declined in February by 5.3 percent from January, but the value of building contracts awarded did increase nationally from 1980 levels. That increase is less encouraging than it might seem, considering that February 1980 construction definitely was at low ebb. The total value of the rise in construction contracts also is less than totally encouraging. The 2.0 percent gain incudes a 17 percent increase in nonresidential buildings, less a 4.0 percent decline in residential contracts and a 9.0 percent drop in nonbuilding construction.

Mixed signals abounded in February. Consumer prices rose by 1.0 percent in February (mostly due to fuel-cost increases) while retail sales rose 0.9 percent (thus, retail sales declined in real terms). Car sales, however, were up dramatically by month's end because of industry-wide rebates after January's laggard new-car sales.

All the signs add up to continuing uncertainty. Consumers and businesses alike are trying to decide how to deal with extraordinarily high interest rates during a time of less than robust economic performance. If the economy were booming, few would be as tentative as borrowers are about taking out loans at the high rates. Interest rates might be expected to rise when demand is high, but demand is not as high as would be expected during a business-cycle expansion. In fact, borrowing has stayed virtually flat over the past six months despite recent declines in interest rates.

A quick look at various sales levels bears witness to the sluggish state of the economy. As compared with January, durable-goods sales rose 0.7 percent in February; nondurable-goods sales were up 1.0 percent; and retail sales, excluding automobiles, gained 0.7 percent. Compared with 1980, total retail sales were up 6.4 percent. None of these figures is too encouraging when inflation is taken into account. In fact, it would appear that sales levels in general are not keeping pace with inflation.

Unemployment, meanwhile, was at an unadjusted national rate of 8.0 percent, according to the U.S. Department of Labor, up 1.2 percentage points from February 1980.

What conclusions can be drawn from this economic muddle? Barring some unexpected event to jar the economy out of its sluggishness, probably more of the same. Further, as economic conditions now stand, most sectors can expect only very slight gains with each passing month. One can hope that such slow growth may retard inflation even if it fails to translate into large profit gains for businesses.

Table I reveals a similarly slow state of affairs for the Kansas economy. The average work week and average weekly earnings dipped in February after a promising increase in January. On the other hand, initial claims for unemployment insurance fell 15.4 percent, or 2,102 from January. This decline, however, is at least in part a seasonal phenomenon, as claims typically are high in January. The new claims figure also was well below the 1980 annual average. New in-state for profit incorporations, meanwhile, jumped 38.9 percent from January and moved ahead of the preceding six-month average and the 1980 annual average.

Employment

Overall industry employment remained fairly stable in February, showing a slight upward trend from January, yet still lagging somewhat behind last year's February level (see Table II). While manufacturing employment in durable goods showed little

change from January, the levels remained significantly below those of last year. The fabricated metal products industry showed the most dramatic decline of 11.1 percent compared with February 1980. Nondurable goods employment showed an overall slight decrease from January figures, and a slightly larger decrease of 2.5 percent over last year. The 48.5 percent increase in the petroleum and coal industry did not offset the overall decrease in this category. Mining employment changed only slightly from January but continued to show an increase over last year's level. Employment in this sector may experience gains as the effects of the recent deregulation of oil prices begin to be realized.

Construction employment continued to decline and was 6.8 percent lower than last year's February level. Trade sector employment and service and government employment showed slight gains.

The Kansas labor force increased by 1.0 percent but still remained slightly smaller than last year. Although total employment increased at approximately this same rate, over one half of the rise reflected increases in farm employment. Sharp increases in unemployment for the state showed the effects of continued depressed activity. Seasonal layoffs may partially explain the increase in unemployment from January levels.

Regional employment figures (Table III) also show a decline for the state in February over month-ago and year-ago levels. Of the areas listed, only the Riley County-Manhattan area and the Barton County-Great Bend area showed an improved monthly unemployment rate. Riley County's rate of 4.5 percent was down from January's 4.6 percent level and included an increase in the work force over the month. At 4.5 percent, however, the county still remained above 1980s 4.4 percent level. Barton County, meanwhile, continued not only to show the lowest unemployment rate of the counties listed but also improved its rate, down to 2.3 percent from January's 2.4 percent rate and from February 1980s 2.8 percent rate. This county's rate improvement included a larger work force and fewer unemployed workers.

February's total employment gain of 0.9 percent from January was largely the result of an 11.1 percent increase in farm employment counterbalanced by a 23.9 percent increase in the total number of unemployed workers.

Retail Sales

Retail sales subject to sales tax showed a strong rebound in the three-month period ending in February from the previous three-month period. These increases probably were a result of holiday spending and of a general spending increase from a slow previous quarter. Comparing the figures to year-ago levels shows that the large increase from the preceding quarter merely brought sales levels back to the quarter's expected level.

The decline of 6.8 percent in lumber and building materials over 1980 levels reflects the continuing difficulties being experienced in the construction industry, although sales here did show a slight increase over the previous quarter (see Table IV).

Retail sales by county (Table V) were similar to the sales by category figures—generally up from the preceding three months, but with little gain over 1980. Major retailing centers showed slight gains as a rule over year-ago levels and fairly big increases over the previous three months. Sedgwick County showed a 17.0 percent increase over the preceding quarter and 2.0 increase over 1980; Wyandotte County was up 6.5 percent for the quarter and 0.9 percent for the year; Johnson, up 21.6 percent for the quarter, 3.1 percent for the year; Shawnee, up 17.8 percent for the quarter and down 1.3 percent for this year.

Farm Prices

Prices that farmers received for field crops generally edged downward in February after a year of steady increases. Wheat, which consistently has been the least gainer over the past several months, brought in $3.96 a bushel, down 2.0 percent from January and up 6.2 percent from February 1980. And, although prices were down for corn, sorghum, and soybeans (which led the losers at 6.9 percent decline over the previous month), these crops still drew sizable increases over 1980 levels.

Some of February's declines may be due to fairly strong Southern Hemisphere crop productions which are generally increasing supply and, thus, lowering prices. Overseas demand for soybeans has seemed to decline in recent months, thus eroding the price for that commodity.

As a group, livestock farmers did not fare well. Prices for beef cattle, calves, lambs, and sheep were down by 14.0 percent or more over last year's prices, while feed prices soared by 22.4 percent for beef concentrate. Dairy feed prices rose the most over 1980, up 24.2 percent, but milk was one of only two livestock products that rose in price, up 10.9 percent from 1980. The other price gainer was in hogs, up 15.4 percent as compared with 1980. This price hike may be a result of the 4.0 percent decline nationally in pork production (see Table VI).

Financial Activity

The banking business across Kansas in February reflected the generally stagnant state of the economy (see Tables VII and VII-I). Statewide loans were up a minimal 2.0 percent from 1980 for Federal Reserve member and nonmember banks, hardly the amount of lending activity that would be expected in an expansionary phase. As compared with a month ago, loans held steady overall and actually declined 0.2 percent at member banks. This decline is somewhat surprising considering that interest rates had tended to ease off somewhat in February after January's record high. No new jump in time and savings deposits for the month was recorded, possibly indicating that the move of checking account balances into the interest-paying NOW accounts seen in January will not be an ongoing event. In fact, despite the NOW accounts, time and savings deposits declined from 1980 levels at banks in two major state financial centers, Topeka and Kansas City.

These figures may indicate that Kansans have been investing much of their available reserves in money market mutual funds and similar near-cash instruments because of high inflation and because interest rates at financial institutions are far below what can be earned fairly safely with such funds, many of which include check-writing privileges.

It is uncertain whether the small increase in loan activity is a result of lack of demand by individual and business investors or whether banks are hesitant to lend at a time when they themselves must borrow for their funds as a result of declining deposits.

Net new savings at savings and loans associations plummeted for the same reasons that banks' deposits were off. As investors and savers sought higher interest returns elsewhere, the Kansas savings and loans were left with an 88.2 percent drop in net new savings as compared with February 1980 and an 84.0 percent decline from January levels.

Mortgage loans made at the associations also were down, offering little encouragement for a healthy boost in construction activity (see Table VIII).

Consumer Prices

The Kansas City consumer price index for the two-month period ending in February 1981 shows that all items increased in price by 1.1 percent. For this period, six of the seven major item categories rose in price within a range of 5.7 percent for medical care to 0.6 percent for entertainment. Housing was the lone item to record a decline in cost, down 0.4 percent.

Over the year, all items rose in price by 9.7 percent in Kansas City, a stiff increase but less than the all city U.S. rate of 11.3 percent. The greatest increase was for medical care (13.1 percent); the smallest was for apparel and upkeep (8.7 percent). All other increases were in a range from 11.6 percent for entertainment to 8.9 percent for housing (see Table IX).

TABLE I
GENERAL BUSINESS INDICATORS

	Feb. 1981	Jan. 1981	% change	Avg. Prior 6 mos.	Annual Avg. 1980
Manufacturing					
Average Work Week (hrs.)	39.70	40.80	– 2.7	41.00	40.40
Average Weekly Earnings (dollars)	307.28	314.16	– 2.2	310.95	0.0
Initial Claims for Unemployment Insurance	11,536.00	13,642.00	– 15.4	12,010.00	13,811.00
New Incorporations					
In-State For Profit	432.00	311.00	38.9	405.00	425.00
Out-of-State For Profit	124.00	121.00	2.5	113.00	99.00

Source: Research and Analysis Section
Division of Staff Services
Kansas Department of Human Resources

Kansas Secretary of State

TABLE II
NON-FARM WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK
(thousands)

Industry	Feb. 1981	Jan. 1981	% change	Feb. 1980	% change
All Industries	942.6	942.1	0.1	944.9	– 0.2
Manufacturing	185.1	185.6	– 0.3	199.9	– 7.4
Durable Goods	119.0	119.4	– 0.3	132.1	– 9.9
Stone, Clay, Glass	7.0	7.3	– 4.1	7.7	– 9.1
Primary Metals	3.8	3.8	0.0	4.2	– 9.5
Fabricated Metal Products	12.0	11.9	0.8	13.5	– 11.1
Machinery (incl. elec.)	33.7	33.7	0.0	37.8	– 0.3
Transportation Equipment	50.6	50.5	0.2	56.8	– 10.9
Aircraft & Parts	43.2	43.2	0.0	46.3	– 6.7
Other Durable Goods	11.9	12.2	– 2.5	12.1	– 1.7
Nondurable Goods	66.1	66.2	– 0.2	67.8	– 2.5
Food & Kindred Products	22.9	23.0	– 0.4	23.2	– 1.3
Meat Products	9.1	8.9	2.2	9.8	– 7.1
Apparel	3.2	3.2	0.0	3.6	– 11.1
Printing & Publishing	16.4	16.3	0.6	17.3	– 5.2
Chemicals	8.7	8.7	0.0	9.1	– 4.4
Petroleum & Coal	4.9	5.1	– 3.9	3.3	48.5
Other Nondurable	10.0	9.9	1.0	11.3	– 11.5
Mining	15.9	15.8	0.6	14.3	11.2
Oil & Gas Extraction	14.1	14.0	0.7	12.4	13.7
Contract Construction	38.4	41.1	– 6.6	41.2	– 6.8
Trans., Comm., Elec., Gas	64.0	63.6	0.6	64.4	– 0.6
Wholesale Trade	64.8	65.1	– 0.5	63.7	1.7
Retail Trade	159.7	162.3	– 1.6	157.4	1.5
Finance, Insurance, Real Estate	46.8	47.0	– 0.4	46.3	1.1
Services	174.0	171.9	1.2	167.2	4.1
Federal Government	26.2	26.3	– 0.4	25.6	2.3
State & Local Government	167.7	163.4	2.6	164.9	1.7

Source: Research and Analysis Section
Division of Staff Services
Kansas Department of Human Resources

TABLE III
EMPLOYMENT—UNEMPLOYMENT DATA FOR KANSAS, STATE AND AREAS

Area	Feb. 1981	Jan. 1981	% change	Feb. 1980	% change
Kansas—Statewide					
Civilian Labor Force	1,196,800	1,184,700	1.0	1,198,400	– 0.1
Employed	1,146,000	1,138,300	0.7	1,153,600	– 0.7
Farm	52,000	46,800	11.1	53,200	– 2.3
Non-Farm	1,094,000	1,089,900	0.4	1,100,400	– 0.6
Unemployed	50,800	48,400	5.0	44,800	13.4
Rate	4.2%	4.1%		3.7%	
Lawrence SMSA					
Civilian Labor Force	35,100	34,700	1.2	35,400	– 0.8
Employed	33,500	33,200	0.9	34,000	– 1.5
Farm	600	600	0.0	700	– 14.3
Non-Farm	32,900	32,600	0.9	33,300	– 1.2
Unemployed	1,500	1,500	0.0	1,400	7.1
Rate	4.3%	4.3%		4.0%	
Kansas Portion of Kansas City SMSA					
Civilian Labor Force	266,700	266,700	0.0	264,300	0.9
Employed	253,400	254,100	– 0.3	253,200	0.1
Farm	1,100	1,000	10.0	1,200	– 8.3
Non-Farm	252,300	253,100	– 0.3	252,000	0.1
Unemployed	13,300	12,600	5.6	11,100	19.8
Rate	5.0%	4.7%		4.2%	
Topeka SMSA					
Civilian Labor Force	94,200	93,400	0.9	93,900	0.3
Employed	88,900	88,300	0.7	89,300	– 0.4
Farm	1,500	1,400	7.1	1,600	– 6.3
Non-Farm	87,400	86,900	0.6	87,700	– 0.3
Unemployed	5,300	5,100	3.9	4,600	15.2
Rate	5.6%	5.5%		4.9%	
Wichita SMSA					
Civilian Labor Force	223,200	223,100	0.0	222,600	0.3
Employed	214,500	214,700	– 0.1	215,700	– 0.6
Farm	2,100	1,900	10.5	2,200	– 4.5
Non-Farm	212,400	212,800	– 0.2	213,500	– 0.5
Unemployed	8,700	8,400	3.6	6,900	26.1
Rate	3.9%	3.8%		3.1%	
Barton Co.—Great Bend Area					
Civilian Labor Force	18,125	17,750	2.1	17,650	2.7
Employed	17,700	17,325	2.2	17,150	3.2
Farm	775	675	14.8	775	0.0
Non-Farm	16,925	16,650	1.7	16,375	3.4
Unemployed	425	425	0.0	500	– 15.0
Rate	2.3%	2.4%		2.8%	
Crawford Co.—Pittsburg Area					
Civilian Labor Force	16,825	16,450	2.3	16,825	0.0
Employed	15,850	15,500	2.3	16,000	– 0.9
Farm	675	625	8.0	700	– 3.6
Non-Farm	13,175	14,875	2.0	15,300	– 0.8
Unemployed	975	950	2.6	825	18.2
Rate	5.8%	5.8%		4.9%	
Lyon Co.—Emporia Area					
Civilian Labor Force	17,550	17,400	0.9	17,700	– 0.8
Employed	16,725	16,575	0.9	17,100	– 2.2
Farm	675	625	8.0	700	– 3.6
Non-Farm	16,050	15,950	0.6	16,400	– 2.1
Unemployed	825	825	0.0	600	37.5
Rate	4.7%	4.7%		3.4%	
Montgomery Co.—Coffeyville Area					
Civilian Labor Force	21,200	20,800	1.9	21,300	– 0.5
Employed	20,300	19,975	1.6	20,525	– 1.1
Farm	500	450	11.1	500	0.0
Non-Farm	19,800	19,525	1.4	20,025	– 1.1
Unemployed	900	825	9.1	775	16.1
Rate	4.2%	4.0%		3.6%	
Reno Co.—Hutchinson Area					
Civilian Labor Force	30,400	30,275	0.4	31,925	– 4.8
Employed	28,450	28,400	0.2	30,775	– 7.6
Farm	1,100	1,000	10.0	1,125	– 2.2
Non-Farm	27,350	27,400	– 0.2	29,650	– 7.8
Unemployed	1,950	1,875	4.0	1,150	69.6
Rate	6.4%	6.2%		3.6%	
Riley Co.—Manhattan Area					
Civilian Labor Force	21,775	20,675	5.3	21,800	– 0.1
Employed	20,800	19,725	5.4	20,850	– 0.2
Farm	875	800	9.4	875	0.0
Non-Farm	19,925	18,925	5.3	19,975	– 0.3
Unemployed	975	950	2.6	950	2.6
Rate	4.5%	4.6%		4.4%	
Saline Co.—Salina Area					
Civilian Labor Force	26,400	26,225	0.7	26,500	– 0.4
Employed	25,100	24,975	0.5	25,175	– 0.3
Farm	575	525	9.5	600	– 4.2
Non-Farm	24,525	24,450	0.3	24,575	– 0.2
Unemployed	1,300	1,250	4.0	1,325	– 1.9
Rate	4.9%	4.8%		5.0%	

Source: Research and Analysis Section
Division of Staff Services
Kansas Department of Human Resources

TABLE IV
RETAIL SALES SUBJECT TO SALES TAX BY BUSINESS CLASSIFICATION

(millions of dollars)

Business Classification	Feb. * 1981	Nov.* 1980	% change	Feb.* 1980	% change
Apparel	39.9	26.5	50.6	38.7	3.1
Automotive	200.2	186.7	7.2	194.6	2.9
Food	260.7	237.4	9.8	252.9	3.1
Furniture	50.0	41.4	20.8	49.6	0.8
General Merchandise	200.7	135.0	48.7	194.6	3.1
Lumber and Building Materials	92.7	88.9	4.3	99.5	- 6.8
Professional and Personal Service	48.0	42.9	11.9	44.2	8.6
Public Utilities	53.4	47.8	11.7	42.5	25.6
Unclassified	107.3	100.0	7.3	103.7	3.5
Farm and Garden Products	1.1	0.9	22.2	1.1	0.0
Manufacturing and Trading	92.0	83.5	10.2	84.6	8.7
Miscellaneous	4.2	3.1	35.5	2.5	68.0
Total	1150.6	994.5	15.7	1109.0	3.8

* Monthly Average for Prior Three Months

Source: Tax Research Section
Kansas Department of Revenue

TABLE V
RETAIL SALES SUBJECT TO SALES TAX BY COUNTY

(thousands of dollars)

County	Sales * Feb. 1981	Sales * Nov. 1980	Change From Nov. 1980 (%)	Sales * Feb. 1980	Change From Feb. 1980 (%)
Allen	5,768	4,691	22.9	5,901	- 2.2
Anderson	2,172	2,046	6.1	2,645	- 17.9
Atchison	5,270	4,301	22.5	5,393	- 2.3
Barber	2,862	2,355	21.5	2,649	8.0
Barton	33,507	27,278	22.8	27,551	21.6
Bourbon	5,787	4,842	19.5	6,212	- 6.8
Brown	3,749	3,070	22.1	3,872	- 3.2
Butler	18,121	16,434	10.3	16,647	8.9
Chase	960	727	31.9	856	12.1
Chautauqua	1,610	1,339	20.2	1,269	26.9
Cherokee	4,335	3,845	12.7	4,530	- 4.3
Cheyenne	1,648	1,278	28.9	1,652	- 0.3
Clark	628	560	12.0	714	- 12.0
Clay	3,233	2,816	14.8	3,558	- 9.1
Cloud	4,979	4,188	18.9	5,172	- 3.7
Coffey	2,220	2,121	4.7	2,286	- 2.9
Comanche	671	620	8.2	630	6.5
Cowley	15,943	13,039	22.3	15,290	4.3
Crawford	12,919	12,121	6.6	13,480	- 4.2
Decatur	2,031	1,623	25.1	1,683	20.7
Dickinson	6,048	5,413	11.7	6,419	- 5.8
Doniphan	1,982	1,880	5.4	1,840	7.7
Douglas	24,863	22,446	10.8	24,456	1.7
Edwards	1,274	1,081	17.9	1,086	17.3
Elk	671	538	24.6	731	- 8.2
Ellis	16,478	13,294	23.9	14,476	13.8
Ellsworth	1,978	1,949	1.5	1,887	4.8
Finney	18,605	14,534	28.0	16,637	11.8
Ford	16,719	13,724	21.8	16,342	2.3
Franklin	6,901	5,815	18.7	7,630	- 9.5
Geary	9,386	7,816	20.1	9,124	2.9
Gove	1,415	1,320	7.2	1,422	- 0.5
Graham	2,054	1,642	25.1	1,849	11.1
Grant	4,303	3,550	21.2	3,917	9.9
Gray	2,073	1,851	12.0	1,926	7.7
Greeley	614	607	1.3	567	8.4
Greenwood	3,165	3,012	5.1	2,953	7.2
Hamilton	688	664	3.5	780	- 11.8
Harper	3,249	2,772	17.2	3,025	7.4
Harvey	10,233	8,456	21.0	10,639	- 3.8
Haskell	1,278	1,172	9.1	1,120	14.1
Hodgeman	393	369	6.5	375	4.7
Jackson	2,509	1,909	31.4	2,457	2.1
Jefferson	2,616	3,400	- 23.1	2,863	- 8.6
Jewell	1,053	1,064	- 1.0	953	10.5
Johnson	141,836	116,642	21.6	137,627	3.1
Kearny	674	707	- 4.6	778	- 13.4
Kingman	2,471	2,446	1.0	2,897	- 14.7
Kiowa	1,554	1,223	27.1	1,430	8.7
Labette	8,728	7,448	17.2	8,724	0.1
Lane	843	823	2.4	888	- 5.1
Leavenworth	12,872	11,587	11.1	12,750	1.0
Lincoln	1,282	1,156	10.9	1,174	9.2

* Monthly Average for Prior Three Months

TABLE V
RETAIL SALES SUBJECT TO SALES TAX BY COUNTY (Continued)
(thousands of dollars)

County	Sales * Feb. 1981	Sales * Nov. 1980	Change From Nov. 1980 (%)	Sales * Feb. 1980	Change From Feb. 1980 (%)
Linn	1,720	1,609	6.8	1,781	– 3.4
Logan	1,857	1,700	9.2	1,973	– 5.9
Lyon	15,393	12,664	21.5	14,415	6.8
McPherson	10,469	9,551	9.6	10,348	1.2
Marion	3,892	3,309	17.6	4,110	– 5.3
Marshall	4,435	3,378	31.3	4,591	– 3.4
Meade	1,501	1,376	9.1	1,490	0.7
Miami	6,881	5,803	18.6	6,542	5.2
Mitchell	3,819	3,479	9.8	3,988	– 4.2
Montgomery	18,633	15,849	17.6	16,767	11.1
Morris	1,521	1,304	16.6	1,615	– 5.8
Morton	1,465	1,300	12.7	1,338	9.5
Nemaha	3,476	3,152	10.3	3,759	– 7.5
Neosho	9,957	8,352	19.2	8,920	11.6
Ness	2,644	2,047	29.2	2,124	24.5
Norton	2,527	2,304	9.7	2,501	1.0
Osage	3,044	2,796	8.9	3,495	– 12.9
Osborne	2,063	1,860	10.9	1,753	17.7
Ottawa	1,219	1,301	– 6.3	1,264	– 3.5
Pawnee	3,612	2,796	29.2	3,416	5.7
Phillips	2,824	2,443	15.6	2,819	0.2
Pottawatomie	5,468	4,553	20.1	5,174	5.7
Pratt	5,623	4,799	17.2	5,801	– 3.1
Rawlins	1,123	1,093	2.8	1,069	5.1
Reno	31,674	26,824	18.1	32,768	– 3.3
Republic	2,433	2,169	12.2	2,619	– 7.1
Rice	3,786	3,199	18.3	3,372	12.3
Riley	16,407	13,870	18.3	17,176	– 4.5
Rooks	5,052	4,399	14.8	4,094	23.4
Rush	1,531	1,508	1.5	1,480	3.4
Russell	7,189	5,570	29.1	5,710	25.9
Saline	29,758	25,562	16.4	29,828	– 0.2
Scott	2,923	3,488	– 16.2	2,762	5.8
Sedgwick	219,540	187,568	17.0	215,273	2.0
Seward	14,676	11,264	30.3	13,091	12.1
Shawnee	77,206	65,567	17.8	78,240	– 1.3
Sheridan	1,359	1,259	8.0	1,311	3.6
Sherman	4,895	4,234	15.6	4,560	7.3
Smith	1,908	1,807	5.6	1,934	– 1.4
Stafford	1,984	1,578	25.7	1,752	13.3
Stanton	913	849	7.5	863	5.8
Stevens	1,636	1,466	11.6	1,597	2.4
Sumner	6,745	7,059	– 4.4	6,808	– 0.9
Thomas	5,047	4,462	13.1	4,770	5.8
Trego	1,482	1,482	– 0.0	1,338	10.8
Wabaunsee	1,012	933	8.4	1,139	– 11.2
Wallace	741	678	9.2	623	18.8
Washington	2,029	1,979	2.5	2,252	– 9.9
Wichita	1,912	1,732	10.4	953	100.6
Wilson	2,813	2,432	15.7	2,890	– 2.6
Woodson	1,125	899	25.0	1,197	– 6.0
Wyandotte	64,282	60,350	6.5	63,728	0.9

Source: Tax Research Section
Kansas Department of Revenue

TABLE VI
PRICES RECEIVED BY KANSAS FARMERS
(dollars)

Items	Feb. 1981	Jan. 1981	% change	Feb. 1980	% change	Annual Avg. 1980
Prices Received by Farmers						
Field Crops						
Wheat (bu.)	3.96	4.04	– 2.0	3.73	6.2	3.73
Corn (bu.)	3.38	3.43	– 1.5	2.45	38.0	2.85
Sorghum (cwt.)	5.11	5.29	– 3.4	3.89	31.4	4.55
Hay (ton)	71.50	71.50	0.0	49.00	45.9	54.92
Soybeans (bu.)	7.06	7.58	– 6.9	5.92	19.3	6.64
Livestock & Products						
Beef Cattle (cwt.)	62.80	61.90	1.5	75.50	– 16.8	64.73
Calves (cwt.)	71.40	72.20	– 1.1	85.00	– 16.0	75.86
Hogs (cwt.)	41.10	40.50	1.5	35.60	15.4	37.92
Lambs (cwt.)	54.20	50.10	8.2	63.00	– 14.0	63.66
Sheep (cwt.)	25.80	24.30	6.2	30.40	– 15.1	22.77
Milk (cwt.)	14.30	14.30	0.0	12.90	10.9	13.05
Prices Paid by Farmers						
Soybean Meal (cwt.)	14.00	15.00	– 6.7	12.00	16.7	12.56
Bran (cwt.)	9.40	9.30	1.1	8.10	16.0	8.30
Beef Conc. (cwt.)	12.00	12.00	0.0	9.80	22.4	10.41
16% Dairy Feed (ton)	200.00	196.00	2.0	161.00	24.2	174.58
Hog Conc. (cwt.)	15.60	16.10	– 3.1	14.00	11.4	14.65
Laying Feed (ton)	235.00	235.00	0.0	190.00	23.7	200.75

Source: Kansas Crop and Livestock Reporting Service
Kansas State Board of Agriculture

U.S. Department of Agriculture

TABLE VII
COMMERCIAL BANKING ACTIVITY FOR ALL BANKS

(millions of dollars)

	Feb. 1981	Jan. 1981	% change	Feb. 1980	% change
Kansas—Statewide					
Loans	8,159	8,157	0.0	7,999	2.0
Demand Deposits	3,546	3,849	– 7.9	3,929	– 9.7
Time & Saving Deposits	10,153	9,929	2.3	8,892	14.2
Loan-to-Deposit Ratio	59.6%	59.2%		62.4%	
Kansas City (Wyandotte)					
Loans	481	489	– 1.6	511	– 5.9
Demand Deposits	194	200	– 3.0	214	– 9.3
Time & Saving Deposits	602	610	– 1.3	606	– 0.7
Loan-to-Deposit Ratio	60.4%	60.4%		62.3%	
Topeka (Shawnee)					
Loans	480	487	– 1.4	508	– 5.5
Demand Deposits	262	257	1.9	294	– 10.9
Time & Saving Deposits	446	397	12.3	539	– 17.3
Loan-to-Deposit Ratio	67.8%	74.5%		61.0%	
Wichita (Sedgwick)					
Loans	1,248	1,247	0.1	1,202	3.8
Demand Deposits	763	821	– 7.1	799	– 4.5
Time & Saving Deposits	1,298	1,294	0.3	1,197	8.4
Loan-to-Deposit Ratio	60.6%	59.0%		60.2%	

Source: Research Department
Federal Reserve Bank of Kansas City

Institute for Economic and Business Research

TABLE VII-I
COMMERCIAL BANKING ACTIVITY FOR MEMBER BANKS

(millions of dollars)

	Feb. 1981	Jan. 1981	% change	Feb. 1980	% change
Kansas—Statewide					
Loans	3,674	3,681	– 0.2	3,602	2.0
Demand Deposits	1,802	1,949	– 7.5	1,997	– 9.8
Time & Saving Deposits	4,406	4,309	2.3	3,859	14.2
Loan-to-Deposit Ratio	59.2%	58.8%		61.5%	
Kansas City (Wyandotte)					
Loans	200	203	– 1.5	212	– 5.7
Demand Deposits	98	101	– 3.0	108	– 9.3
Time & Saving Deposits	221	224	– 1.3	222	– 0.5
Loan-to-Deposit Ratio	62.7%	62.5%		64.2%	
Topeka (Shawnee)					
Loans	254	256	– 0.8	269	– 5.6
Demand Deposits	170	167	1.8	190	– 10.5
Time & Saving Deposits	236	210	12.4	285	– 17.2
Loan-to-Deposit Ratio	62.6%	67.9%		56.6%	
Wichita (Sedgwick)					
Loans	715	714	0.1	688	3.9
Demand Deposits	460	495	– 7.1	482	– 4.6
Time & Saving Deposits	641	640	0.2	591	8.5
Loan-to-Deposit Ratio	64.9%	62.9%		64.1%	

Source: Research Department
Federal Reserve Bank of Kansas City

Institute For Economic and Business Research

TABLE VIII
SAVINGS AND LOAN ACTIVITY

(thousands of dollars)

	Feb. 1981	Jan. 1981	% change	Feb. 1980	% change
Net New Savings	1,900	11,900	– 84.0	16,161	– 88.2
Mortgage Loans Made	41,000	56,700	– 27.7	42,229	– 2.9

Source: Federal Home Loan Bank of Topeka

TABLE IX
CONSUMER PRICES

Kansas City

Consumer Price Index, February, 1981

	All Urban Consumers (CPI-U)			Wage Earners and Clerical Workers (CPI-W)		
		Percent change from			Percent change from	
	INDEX 1967 = 100	2 months ago	1 year ago	INDEX 1967 = 100	2 months ago	1 year ago
ALL ITEMS	261.9	1.1	9.7	260.1	1.1	9.9
Food and Beverages	268.8	1.7	9.8	263.2	0.9	9.9
Food	275.8	1.6	10.1	270.0	0.8	10.0
Food at home	268.3	0.9	11.1	264.3	0.3	10.7
Cereals & bakery products	280.0	2.4	15.1	272.6	2.9	11.5
Meats, poultry, fish & eggs	243.5	-2.4	6.5	242.2	-3.1	4.8
Dairy products	242.7	-0.3	6.1	244.5	0.1	7.4
Fruit and vegetables	275.5	4.6	18.1	258.4	1.7	19.1
Other foods at home	320.2	2.5	12.9	318.9	2.3	14.8
Food away from home	298.4	3.1	8.4	288.7	2.0	8.7
Alcoholic beverages	201.1	2.1	5.2	198.4	2.2	8.2
Housing	275.0	-0.4	8.9	271.6	-0.4	9.3
Shelter	302.8	-1.3	8.3	299.1	-1.4	9.0
Rent (residential)	171.7	4.3	11.9	171.7	4.3	11.9
Other rental costs	228.3	2.3	2.5	230.0	2.2	1.8
Homeownership	351.0	-2.1	8.0	345.9	-2.1	8.8
Fuel & other utilities	262.5	2.1	12.7	265.3	2.3	12.8
Fuels	345.1	1.7	14.5	348.4	2.0	14.6
Fuel oil, coal, & bottled gas*	191.4	8.5	16.8	203.7	9.8	17.4
Gas (piped) & electricity	341.1	1.3	14.3	340.9	1.3	14.3
Household furnishings & oper	209.7	1.9	8.2	204.8	1.5	7.4
Apparel & Upkeep	194.0	0.8	8.7	187.6	3.1	7.0
Men's & boys' apparel	205.8	4.2	5.4	202.1	-0.1	1.9
Women's & girls' apparel	172.1	-2.8	4.3	155.4	6.8	4.2
Footwear	205.9	0.8	13.6	221.2	5.6	12.2
Transportation	262.2	3.1	10.9	264.7	3.6	11.1
Private transportation	264.0	3.0	10.5	266.9	3.6	10.8
Public transportation	226.3	4.1	21.7	217.7	3.8	19.2
Medical Care	286.0	5.7	13.1	283.7	3.2	13.6
Medical care services	311.7	6.3	13.6	308.2	3.4	14.3
Entertainment	205.2	0.6	11.6	213.1	0.8	11.3
Other Goods & Services	231.9	1.5	9.2	235.5	1.1	8.7
ALL ITEMS (1957-59 = 100)	310.9			308.8		

* June 1978 = 100

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KANSAS BUSINESS REVIEW

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Daniel W. Francke

The Kansas Economy

Economic Indicators

Institute for Economic and Business Research, The University of Kansas

Kansas Business Review

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Submit manuscripts to: Editor, *Kansas Business Review,* The Institute for Economic and Business Research, 319 Raymond Nichols Hall, The University of Kansas, Lawrence, Kansas 66045.

Assessing Kansas' Latent Labor Force

Daniel W. Francke

Mr. Francke is a Senior Associate with Development Planning and Research Associates (DPRA) of Manhattan, Kansas and was the principal investigator for a study sponsored by the Kansas Department of Economic Development (KDED) and the Sunflower State Private Industrial Council (PIC) to assess the Kansas labor supply with emphasis on latent, hidden, or discouraged workers and the labor reserve.

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Introduction

This article is an abstract of the findings and implications of a study commissioned on behalf of the Kansas Department of Economic Development (KDED) by the Sunflower State Private Industrial Council (PIC). The study's purpose was to develop a methodology and models which can measure and document the number of persons in the "latent" labor force.

Additionally, the study addressed the data needs of the Kansas Comprehensive Employment and Training Act (CETA) Private Sector Initiative Program, administered by the Sunflower State Private Industry Council (PIC). The PIC seeks improved local/county estimates on the number of persons eligible for CETA training within the "latent" and normal labor force. The procedures for improving such estimates were also addressed in the study.

The primary research phases of the study were:

1. literature and data search and review,
2. development of county population and labor supply statistical profiles, and
3. preliminary methodology and model development and testing.

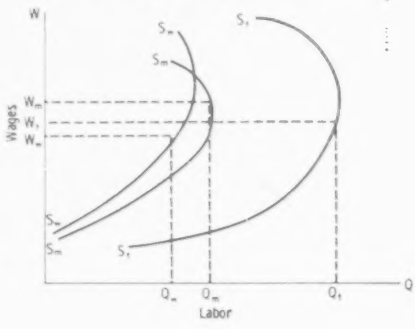
Overview of Labor Supply

Before examining labor supply conditions in Kansas, a general review of the subject is instructive. The review will cover labor supply concepts; general characteristics of labor supply; and other research on regional, state, and local labor conditions.

Most theoretical studies characterize labor supply as a function of wage rates. Under normal conditions, as the wage rate increases the supply of labor increases. However, for the individual and, eventually for the aggregate, a decision must be made at what point work is more valuable than leisure which is a substitute for labor. If rising real wage rates were to result in increased leisure hours, the effect would develop a backward bending labor supply curve as shown in Figure 1.

The long-term decline in both the male-worker participation rate and hours worked concurrent with increases in real rates and family incomes suggests that the supply curve may already be in the backward bending portion for the male component of the labor supply (Wool, 1978).

Figure 1
General Relationship Between Supply of Labor and Wages for Female (w), Male (m), and Total (t) Work Force



CONCEPTS AND TERMINOLOGY

Before examining specific labor force characteristics, it is critical that some of the extensive and varied concepts and terms that pertain to the phenomenon generally referred to as "labor supply" be identified and discussed. For this study, the following terms or concepts were considered most significant, and the analysis centers on them:

Latent Labor: Latent labor is the underemployed portion of the labor force and those persons potentially entering the labor force under certain socioeconomic incentives.

Labor Force Participation Rate (LFPR): The LFPR of a group is the ratio of the sum of employed and unemployed civilian persons from that group to the total civilian population of the group. The aggregate LFPR is the ratio of all civilians employed and unemployed to the total civilian population of work force age, usually 15 years of age or older.

Hidden Unemployment (HU): Empirically, HU is the group of persons not reported as being in the labor force but who would be in the labor force under full-employment or other favorable conditions. More generally, it is the measurement of how much labor is currently available but not utilized.

Labor Reserve (LR): The labor reserve is a concept developed by academic economists to measure how much labor is potentially available.

Nonparticipants (NP): Nonparticipants are equivalent to the difference between total civilian population of a group and total persons in the group employed and unemployed.

Discouraged Workers (DISC): Discouraged workers are those persons wanting a job but not looking because they believe it would be difficult to find work. These individuals are not officially counted as unemployed or in the labor force.

Primary Workers (PLS): Primary workers are male and unmarried female workers between ages of 25 and 54.

Secondary Workers (SLS): Secondary workers are school-aged youth, married women, and persons at or approaching retirement age.

GENERAL LABOR SUPPLY CHARACTERISTICS

Labor supply characteristics often are tied to labor force participation rates (LFPRs) and will be discussed extensively in this paper. Also, because of the considerable interest in the potential for attracting workers from the nonparticipants in Kansas, significant background on nonparticipant categories will also be given.

Labor Force Participation Characteristics: Labor force participation is a concept frequently used to assess labor supply, and extensive data are available on a historical basis for the United States and, to a limited extent, for Kansas and the state counties. The data are generally in the form of labor force participation (LFP) and labor force participation rates (LFPR).

For the U.S., the labor force has obviously grown due to the growth in the economy and in the population. More importantly, there has been a growth in the labor force participation rate (LFPR) which is significant because it shows an overall expansion in the rate of labor supply. Since 1960, the LFPR has grown from 59.4 percent to 63.7 percent in 1979. However, most of this increase is attributable to increased participation by females. The male participation rate has actually declined in recent years, dropping from 83 percent in 1960 to 78 percent in 1978.

It is also interesting to review historical LFPRs by age as well as gender. For males, a general decline in participation rates has taken place for most age groups with the notable exception of 16-19 year olds. In contrast, all female age categories have increased rates of entrance into the labor force with large increases in participation by prime child-rearing age females age 20 to 35. Within this age category, the LFPR increased about 50 percent between 1960 and 1978, going from 36 percent to 58 percent.

The comparison of U.S. and Kansas LFPRs below shows that Kansans of all ages enter the labor force at higher rates for both males and females.

LFPR

Year	Total		Male		Female	
	U.S.	Kansas	U.S.	Kansas	U.S.	Kansas
			(%)			
1970	60.3	58.2	79.2	77.5	42.8	40.3
1976	61.6	65.1	77.4	81.1	47.3	49.9
1978	63.2	67.2	77.9	81.2	50.0	54.9

While no current age group data exist for Kansas' labor force participation rates, 1970 data reveal that Kansans in specific age groups enter the labor force at rates very similar to those for the U.S.

Labor Force Nonparticipation: Kansas economic development promoters are extremely interested in the potential labor supply that is not in the official labor force statistics; that is, in persons outside the labor force who might enter under varying economic and social conditions. Significant research has been completed on this topic, primarily associated with the concepts of "labor reserve" and "hidden unemployment" (Gellner, 1975; Job, 1979). Generally, both of these concepts address nonparticipants but differ in the emphasis given to the degree to which persons associate themselves with the labor force. "Labor reserve" relates to how much labor is potentially available, in other words, the maximum number of nonparticipants that could enter the labor force. "Hidden unemployment" includes that segment of the labor reserve that is more likely to enter the labor force with marginal changes in social and economic conditions or that is not fully utilized under present conditions. Thus, hidden unemployment tends to be a subset of the labor reserve. An additional category is that of "discouraged workers," a subset of hidden unemployment. These are potential workers who want a job but are discouraged from looking for a job and are, thus, not included in labor force data (Gellner, 1975; Job, 1979; Wool, 1978).

An empirical analysis of these concepts has been completed on a national basis that provides insight into the magnitude of these labor supply components for Kansas and local areas. In 1978 for example, in the U.S. there were 58.5 million people of working age who were not in the labor force. This figure compares to a U.S. labor force of 100.4 million and shows that 63.2 percent of the persons 16 and over participate in the labor force while 36.8 percent do not.

The Bureau of Labor Statistics (BLS) also publishes data outlining the various characteristics of persons not in the labor force. For example, in 1978 the total nonparticipants include about 16.6 million (28 percent) males and 41.9 million (72 percent) females (Table 1).

Obviously, a large portion of the nonparticipants do not want a job, and as many as 91 percent gave this reason for not entering the labor force. This reason is given at about an equal rate for both males and females. However, the BLS data do indicate significant variations between males and females on their specific reasons for not entering the labor force. Schooling keeps 22.7 percent of the males from entering the work force and only 8.9 percent of the females (in absolute numbers this reason is about equal by sex). "Home responsibilities" is the major reason for females not being in the labor force as 72.7 percent cited this reason. Retirement is the reason cited by most men.

With certain assumptions, the not-in-labor-force data can be converted to a "labor reserve" estimate. Assuming that ill, disabled, and retired persons have a very low potential for ever entering the labor force, the remaining persons would represent a reasonable estimate for the maximum potential labor supply from persons not in the labor force, a "labor reserve." When making this adjustment, it is estimated that 75 percent of the nonparticipants would be included in the labor reserve. Extensive variation occurs by gender, however, as only 40 percent of the males but 89 percent of the females would be classified as labor reserve.

Table 1
Characteristics of Labor Force Nonparticipants and the Labor Reserve by Reason, Status, and Gender; United States, 1978

	U.S. nonparticipants			Labor reserve components of nonparticipants			Labor reserve characteristics		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Number of Persons (1000)	58,521	16,634	41,887				43,903	6,612	37,291
DISTRIBUTION (%)									
Do not want a job	90.9	89.9	91.3	67.1	31.6	81.2	89.5	79.4	91.3
In school	10.5	18.5	7.3	10.5	18.5	7.3	14.0	46.5	8.2
Ill/disabled	7.7	14.7	5.0	–	–	–	–	–	–
Keeping house	50.4	1.6	69.8	50.4	1.6	69.8	67.2	4.0	78.5
Retired	16.0	43.6	5.1	–	–	–	–	–	–
Other reason	6.2	11.5	4.1	6.2	11.5	4.1	8.3	28.9	4.6
Want job, not looking	9.1	10.1	8.7	7.9	8.2	7.7	10.5	20.6	8.7
In school	2.4	4.2	1.6	2.4	4.2	1.6	3.2	10.6	1.8
Ill/disabled	1.2	2.0	0.9	–	–	–	–	–	–
Keeping house	2.2	0.2	2.9	2.2	0.2	2.9	2.9	0.5	3.3
Think cannot find job (discouraged)	1.4	1.8	1.3	1.4	1.8	1.3	1.9	4.5	1.5
Other reason	1.9	2.0	1.9	1.9	2.0	1.9	2.5	5.0	2.1
TOTAL NOT IN LABOR FORCE	100.0	100.0	100.0						
TOTAL LABOR RESERVE COMPONENT				75.0	39.8	88.9			
ADJ: LABOR RESERVE = 100%							100.0	100.0	100.0

Source: U.S. Bureau of Labor Statistics as reported in the *Statistical Abstract of the United States: 1979*

Table 2
Scott County Population and Labor Supply Profile: 1978

	Total			Male			Female		
	County		Kansas	County		Kansas	County		Kansas
	No.	%	%	No.	%	%	No.	%	%
POPULATION, ALL AGES	6624			3266			3358		
15 and over	4786	72.3	75.9	2377	72.8	74.9	2409	71.7	76.9
65 and over	732	11.1	12.5	315	9.7	10.3	417	12.4	14.5
15-64	4054	61.2	63.4	2062	63.1	64.1	1992	59.3	62.4
15-24	1134	28.0	30.7	566	27.4	31.9	566	28.5	29.8
25-54	2296	56.6	54.4	1175	57.0	53.8	1121	56.3	54.7
55-64	624	15.4	14.8	321	15.6	14.3	303	15.2	15.5
URBAN POPULATION		69.7	66.0		----			----	
TOTAL LABOR FORCE	3159			2117			1042		
PARTICIPATION RATE % OF 15+		66.0	67.2		89.1	81.8		43.3	54.9
EMPLOYMENT	3088			2084			1004		
UNEMPLOYMENT	71			33			38		
RATE OF UNEMPLOYMENT		2.2	3.0		1.6	2.6		3.6	3.7
NOT IN LABOR FORCE	1627			260			1367		
Inmate/institutions	36			10			27		
School	175			67			109		
Disabled	130			17			113		
Other 65 and over	393			117			276		
LABOR RESERVE (AGE 15-64)	1067			116			951		
Discouraged workers (highly recruitable)	19			5			14		
W/Home responsibilities	672			5			667		
Other	376			106			270		
OCCUPATIONAL EMPLOYMENT									
Farm		19.1	5.9		----			----	
Nonfarm		80.9	94.1		----			----	
Manufacturing—% nonfarm		9.7	20.5		----			----	
Mining—% nonfarm		1.4	1.4		----			----	
Construction—% nonfarm		5.6	5.1		----			----	
Trans. & Pub. Util.—% nonfarm		8.3	6.9		----			----	
Trade (R&W)—% nonfarm		33.3	24.1		----			----	
Finance, Insur.—% nonfarm		2.8	4.9		----			----	
Service—% nonfarm		22.2	17.1		----			----	
Government—% nonfarm		16.7	20.0		----			----	

Source: Prepared by OPRA, Inc. for PIC/KDED

Within this labor reserve, a much higher percentage of men than women want a job but are not looking, 20.6 percent versus 8.7 percent. However, because of a much larger reserve, over twice as many women as men want a job but are not looking.

Of the labor reserve individuals, those who "want a job but think they cannot find one," are considered to be the most recruitable. These "discouraged workers" represent 4.5 percent of the males and 1.5 percent of the females, or about 0.2 percent in total.

Recent research indicates that all classes of labor reserve and nonparticipant constituents can enter the labor force at significant rates (Job, 1979). The analysis found that between the year of 1976 and 1977, about 20 percent of nonparticipants or about 25 percent of the labor reserve subsequently entered the labor force within the next year. With regard to activities, those in school are the most likely to enter the labor force; 66 percent did so in the subsequent year. About 45 percent of the "discouraged workers" entered the labor force, and [redacted] 31 percent of the persons with "no desire for a job" entered the labor force within 12 months. In contrast, "retired" and "ill and disabled" persons showed the lowest entrance rates at 3.8 percent and 10.7 percent, respectively. The low rates justify their exclusion from the labor reserve.

The research also showed that about one fourth of the men and slightly less than one fifth of the women nonparticipants entered the work force. Furthermore, very young people, i.e., those most likely in school, also entered the labor force quite frequently, as 59 percent joined the work force during the period studied (Job, 1979).

Kansas County Population and Labor Supply Profiles

A major task of this study was to develop and organize data profiles on critical labor supply characteristics of counties in Kansas. This task primarily included supplementing conventional county data on labor force size and unemployment data with data on such important labor supply and latent labor factors as male and female labor force participation rates, labor reserve levels, discouraged workers, and general demographic data on cohort population.

The profiles developed provide a much broader and more detailed statistical picture of labor supply conditions in the counties. For each county, these profiles present the following information:

- population by gender and age cohorts;
- urban population;
- total labor force by gender;
- labor force participation rate (LFPR) by gender;
- employment, unemployment, and underemployment rate by gender;
- number of persons not in labor force age 15 and over by gender;
- labor reserve of persons age 15 to 64 by gender and their current status in the labor reserve;
- county occupational employment, farm and nonfarm;
- nonfarm employment categories including manufacturing, mining, construction, transportation and public utilities, retail and wholesale trade, finance and insurance, service, and government.

Table 2, for Scott County, is an example of the kind of in-depth, highly specific profile that can be developed for each Kansas county.

While a comprehensive review of the county profiles is beyond the scope of this article, it is useful to

Table 3
Kansas State and County Labor Force Participation Rates for Total, Male and Female Population: 1978

County	Labor force participation rate (%) Total	Male	Female	County	Labor force participation rate (%) Total	Male	Female
Kansas[1]	64.7	84.1	46.5				
Allen	65.2	88.4	44.5	Linn	57.5	79.2	36.9
Anderson	50.2	70.9	31.2	Logan	69.7	82.4	56.3
Atchison	52.9	67.8	38.9	Lyon	62.8	79.1	47.9
Barber	63.7	87.9	41.1	McPherson	72.9	94.3	53.5
Barton	62.0	84.4	41.3	Marion	53.6	73.2	35.3
Bourbon	64.0	83.6	47.9	Marshall	53.6	76.8	32.7
Brown	60.6	87.0	37.8	Meade	55.7	74.2	37.3
Butler	66.6	90.8	43.9	Miami	59.9	80.2	41.6
Chase	52.1	76.0	30.0	Mitchell	64.6	93.4	40.3
Chautauqua	49.7	71.9	30.4	Montgomery	63.8	86.8	44.0
Cherokee	55.3	77.7	35.6	Morris	52.8	74.6	32.4
Cheyenne	64.8	89.1	43.4	Morton	72.4	95.4	48.5
Clark	56.6	82.0	33.3	Nemaha	61.3	88.3	36.4
Clay	65.5	89.7	43.4	Neosho	63.6	85.2	43.7
Cloud	61.4	80.3	44.9	Ness	59.6	83.1	38.6
Coffey	77.0	95.0	57.0	Norton	57.5	79.4	37.0
Comanche	56.6	80.5	35.9	Osage	69.5	93.8	46.7
Cowley	60.0	78.1	43.4	Osborne	50.3	74.4	28.0
Crawford	54.4	74.5	37.0	Ottawa	59.2	83.4	37.8
Decatur	60.6	83.0	38.6	Pawnee	62.2	76.6	47.4
Dickinson	51.7	71.3	33.8	Phillips	63.7	87.7	41.5
Doniphan	64.2	87.3	40.8	Pottawatomie	75.1	93.9	54.6
Douglas	61.7	72.7	50.2	Pratt	69.2	93.3	47.3
Edwards	50.1	71.5	31.1	Rawlins	58.7	80.6	37.5
Elk	57.8	79.5	39.7	Reno	65.3	85.6	46.5
Ellis	79.4	98.5	61.1	Republic	57.2	81.2	35.2
Ellsworth	57.9	77.7	38.9	Rice	60.4	79.7	42.3
Finney	65.1	88.2	43.0	Riley	63.1	63.7	62.2
Ford	68.3	89.7	48.5	Rooks	49.3	69.0	32.1
Franklin	72.6	97.7	50.5	Rush	53.5	74.5	33.2
Geary	51.5	54.2	48.8	Russell	65.1	89.7	42.9
Gove	58.8	86.4	31.8	Saline	73.0	94.9	53.7
Graham	56.7	79.2	34.7	Scott	66.0	89.1	43.3
Grant	72.2	95.5	42.2	Sedgwick	75.5	97.3	55.5
Gray	66.5	92.0	41.7	Seward	72.6	91.7	53.7
Greeley	69.2	96.0	40.1	Shawnee	60.0	74.9	46.8
Greenwood	53.4	73.6	35.0	Sheridan	67.2	96.0	39.7
Hamilton	53.6	70.6	36.3	Sherman	69.9	90.7	49.7
Harper	53.8	75.2	35.3	Smith	63.8	91.5	39.3
Harvey	73.4	96.5	53.2	Stafford	57.9	82.4	36.7
Haskell	48.4	74.0	22.7	Stanton	64.9	94.9	34.2
Hodgeman	48.0	68.4	26.6	Stevens	61.0	86.6	35.2
Jackson	59.6	84.1	37.1	Sumner	58.3	81.9	36.9
Jefferson	68.4	89.9	47.5	Thomas	75.7	94.7	57.6
Jewell	54.1	79.6	29.0	Trego	67.3	95.8	42.0
Johnson	64.9	85.7	45.5	Wabaunsee	54.9	79.5	31.0
Kearney	64.9	89.8	39.1	Wallace	68.5	92.3	43.4
Kingman	50.8	73.6	30.1	Washington	59.1	89.0	31.2
Kiowa	61.1	80.4	43.6	Wichita	72.7	98.4	44.1
Labette	50.6	65.9	37.1	Wilson	56.1	77.1	37.6
Lane	60.3	89.4	33.3	Woodson	49.5	72.5	28.7
Leavenworth	46.6	48.3	44.3	Wyandotte	68.0	87.5	51.0
Lincoln	47.4	68.8	28.0				

[1] Represents labor force participants as a percent of total population age 15 and over. Data from Kansas Department of Human Resources (HR) and National Cancer Institute (NCR).

	Total	Male	Female
Population (HR) (000)	2359.2	1156.0	1203.2
Percent 15 yrs. old (NCC)	75.9	74.9	76.9
Civilian labor force	1158.0	727.8	430.2
LFPR (%)	64.7	84.1	46.5

This compares to BLS estimates of LFPR for Kansas based civilian population age 16 and over of 67.2, 81.2 and 54.9 for total, males and females respectively. Differences are also attributable to variances in labor force data as BLS reports levels of 1,156,000, 660,000 and 498,000 for total, male and female respectively for 1978.

Source: Development Planning and Research Associates, Inc.; 1980.

review selected data to indicate variations in labor supply conditions across the state and to show the significant oversights that can occur by looking primarily at unemployment rates as a proxy for labor supply conditions. An example of such selected data are state and county labor force participation rates (LFPRs) for total, male, and female populations age 15 and over. These estimates for 1978 are shown in Table 3.

The LFPRs are based on Kansas Department of Human Resources' labor force data and National Cancer Institute updates of 1970 Bureau of Census population data. These data show that although Kansas LFPR average 74.7 percent for the total population age 15 and over, 84.1 percent for males and 46.7 percent for females, there are large differences among counties within the state. For example, total LFPRs range from 79.4 percent in Ellis County in central Kansas to 46.6 percent in Leavenworth County in northeast Kansas. Although some of the variance is caused by definitional factors, e.g., Leavenworth County includes a larger segment of military (noncivilian) employment, significant labor supply variations still exist in terms of the ability to attract persons into the labor force. Furthermore, this measure does not consider the potential for the increased utilization of underemployed persons, which also varies from county to county.

There are also large differences in participation rates of males and females across Kansas counties. Male labor force participation rates range from 98 percent in Franklin and Wichita counties to 66 percent in Labette County. Several counties exhibit labor force participation rates below 72 percent, including Anderson, Chautauqua, Dickinson, Edwards, Hamilton, Lincoln, and Rooks. (Some counties have even lower LFPRs that primarily reflect definitional problems regarding civilian employment. The lowest LFPRs for males exist in counties with large military (noncivilian employment.) These rates compare to a state average LFPR of 84.1 percent for males. Furthermore, all of these counties except Labette (4.0 percent) had 1978 unemployment rates of 3.0 percent or less. This suggests that unemployment rates can indeed be a poor indicator of local labor conditions as these counties appear able to draw a significantly greater percent of males into the labor force.

A similar situation exists for the female cohort in various counties. While very high labor force participation rates in some counties suggest little available surplus, other counties are far below state and federal averages and should be able to supply significant increases in female labor. Again, conventional unemployment data for women in Kansas counties is relatively stable and quite low which could mislead potential developers if used as the prime variable for assessing potential labor supply.

Model Analysis of County Labor Supply Characteristics

While the newly-developed county profile data discussed above provide an improved statistical overview and summary of local labor supply conditions, major unanswered questions concerning the potential for change in the local labor supply still remain. For example, how "tight" is the labor supply? What is the potential for increasing specific county labor force participation? What are the impacts of changes on certain socioeconomic-demographic variables on labor supply characteristics for a particular county?

In an attempt to answer these and other questions, a statistical analysis

was performed, and models were developed to examine county labor supply characteristics. The analysis provided models that:

- incorporated simplified statistical model design and results that can be understood by industrial development prospects;
- evaluated labor supply conditions on a county basis; and
- effectively used current secondary county data and can incorporate new data to keep the model up-to-date.

The modeling procedure included development of theoretical models reflecting conventional labor supply relationships. These models statistically tested for significance by regression analysis. Regression analysis, a well-known procedure for testing and developing models, indicates the relationship between a dependent variable, such as LFPR, and one or more independent variables such as per capita income, county industrialization, and county agricultural income.

During the course of the study, it became apparent that alternative models would be required to assess county labor supply conditions. While this step increased the complexity of the analysis, it also increased the practicality, usefulness, and accuracy of the models and their resultant estimates. Specifically, alternative models were developed to reflect:

- differences in county labor supplies for males, females, and the total population, and
- differences attributable to major regional variations across the state.

To estimate differences by gender, labor supply models were developed to estimate labor force participation rates for all persons (LFPR), for males (LFPRM), and for females (LFPRF).

To allow for general regional differences, the state and counties were initially divided into three regions: 1. northern and western counties, 2. "industrial crescent" counties, and 3. southeastern counties.

The exact demarcation of these regions is shown in Figure 2. The three-region demarcation represents a general demographic-economic division of the state as identified by KDED officials. This general division also reflects statistical considerations that require a relatively large number of counties be included in each region.

While these three regions portray rather unique geographic and economic structures, additional analysis determined that labor supply characteristics apparently can be addressed with only a two-region demarcation that aggregates the northern and western counties with the southeastern counties. This essentially results in a rural-agricultural group of counties and a more urban "industrial crescent" group. Characteristics of the regions indicate that the 68 rural-agricultural counties (64 percent) contain only 28 percent of the Kansas population and 22 percent of the state's private nonfarm income but 67 percent of its farm income. This leaves 72 percent of the population and 88 percent of the private nonfarm income accounted for by the remaining 37 counties (35 percent), those of the "industrial crescent" group.

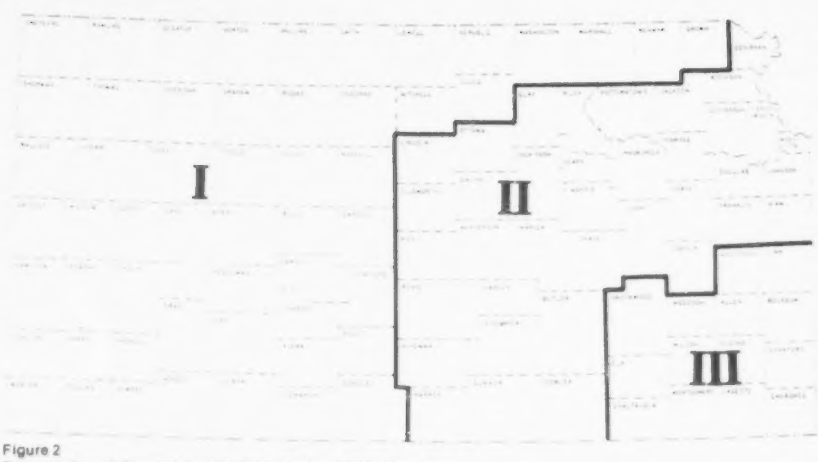


Figure 2
Demarcation of General Kansas Regions for Model Development
I. North/West II. Industrial Crescent III. Southeast

The model development and subsequent analysis resulted in the selection of six models with which to evaluate potential labor supply changes in Kansas counties. The models assess labor supply in terms of changes in labor force participation rates. The models are in multivariable linear form and were developed for each of the following labor force participation rates (LFPR) for the year 1978:

- LFPR78ra: total labor force, rural-agricultural counties (Regions I and III, Figure 2);
- LFPRM8ra: male labor force, rural-agricultural counties;
- LFPRF8ra: female labor force, rural-agricultural counties;
- LFPR78ic: total labor force, "industrial crescent" counties (Region II, Figure 2);
- LRPRM8ic: male labor force, "industrial crescent" counties; and
- LRPRF8ic: female labor force, "industrial crescent" counties.

The models include variables that approximate changes in income, local economic conditions, job availability, and population characteristics. Regression analysis indicates that the models will usually explain 60-70 percent of the variation in labor force participation, a rate considered highly significant based on standard statistical test criteria. The models can assess county or multi-county changes in a local labor supply in response to such an event as locating a manufacturing firm in a given location.

For example, consider a manufacturer assessing the potential for establishing a 100-employee plant in Scott County, Kansas. A review of the unemployment data would suggest insufficient labor conditions as only 2.2 percent or 77 persons are unemployed. However, the plant would have significant impacts on the labor supply through improved job opportunities and increased income, and the plant might easily attract persons into the labor force to supplement potential employees from the unemployment ranks.

Using the appropriate model for Scott County (a rural-agricultural county) indicates that the labor supply response would probably be sufficient to staff the plant. The appropriate model being:

LFPR78ra = .4325 – .0371 RATE 78 + .4420 C5-9-F + .0178 YCAP78 + .0178 + .0038 AGEM78P where

RATE78 = County unemployment rate, 1978

C5-9-F = Ratio of number of children age 5-9 to number of females in county, 1978

YCAP78 = County per capita income ($1000), 1978

AGEM78P = Percent of agricultural employment to total employment, 1978.

Specifically, if unemployment could be dropped 25 percent, the labor force participation rate would increase .020 (.0371 x .25 x 2.2 percent unemployment). This figure would be equivalent to about 100 additional persons entering the labor force (.020 x 4786).

A new plant would also stimulate labor force participation through economic linkages from increased income in the county. The model reflects this effect as measured by changes in per capita income (YCAP78). Assuming personal income would increase about $1,000,000 (100 employees, average $10,000 per employee), then per capita income would increase about $150 per income. This would have the effect of increasing labor force participation by 0.3 percent (.0178 x .150).

The proposed development would also reduce the percentage of agricultural employment in the county by increasing nonfarm and total employment. The model suggests that this result would have a positive although small effect on participation as well. The direct effect of increasing total employment by 100 persons would change the percentage of agricultural employment from 19.1 percent to 18.5 percent, the consequence of which would be an expected increase of 0.2 percent (.0038 x 0.6) in participation.

The location of a 100-employee firm would have no immediate and direct impact on the children-to-women ratio (C5-9-F), as it is a fixed demographic control on labor supply.

In total, then, a new 100-employee manufacturing plant could expect to see the following additions to the labor supply due to the incentives it would provide:

Labor Supply Factor	Resultant Change in LFPR	
Decrease in unemployment rate	.020	
Increase in per capita income	.003	
Decrease in percent of agricultural employment	.002	
Change in children-to-women ratio	none	
Aggregate effect on participation rate	+.025	
Aggregate effect on labor supply	+120	persons (.025 x 4786)

In summary, the participation model indicates that about 100 persons would transfer out of the labor reserve of 1,070 persons into the labor force in direct response to a 100-employee manufacturer locating in Scott County. This increase would be supplemented by the labor supplied from the 77 unemployed persons in Scott County by local underemployed persons and by labor from neighboring counties and migration. In general, labor supply would not appear to be a major obstacle to a 100-employee manufacturer locating in Scott County.

OTHER CONSIDERATIONS

Two important considerations in determining the total labor supply are the number of underemployed and those whose low income indicates their eligibility for CETA programs. Although this study acknowledges the importance of these two components of the labor supply, no estimation of the number of workers in these categories could be made with the existing secondary data. A comprehensive survey of the labor force is one feasible method of enumerating CETA-eligible persons and of identifying the underemployed workers (those having part-time or intermittent employment rather than the desired full-time and those having employment at a skill level below that for which they were trained).

A third consideration that influences a states' labor supply is its migration characteristics. The dynamic relationship between migration and local and regional labor supplies has been investigated extensively. The KD-ED study includes a literature review which discusses several of the more significant investigations of this relationship. The review focuses on labor reallocation in response to market needs, including a specification of economic opportunity, a specification of the labor force, and migration and distance.

To the extent that Kansas economic development is dependent on a redistribution of a suitable labor force, it was found that the promotion of environmental qualities may be of major importance and serve to induce people to move by overcoming distance and wage differentials.

Implications

It should be noted that both the statistical profiles and models developed are, of necessity, but brief abstracts of reality. Labor supply conditions respond to a complex set of economic, demographic, social, and cultural conditions for which precise data are not available. Consequently, profiles and relationships can be addressed for only a few important variables in the hope that these facilitate understanding of a few major labor supply conditions.

However, the study does indicate that labor supply analysts and potential industrial developers should—and now can—review a much broader data base for Kansas counties and, with the models developed in this study, obtain insight into the potential for increasing the local labor supply by drawing persons into the labor force. Moreover, potential county employers can assess the gender mix of present and potential labor force entrants and can combine several counties to evaluate labor reserve or potential from a multi-county labor shed-area.

As mentioned, the study was designed to facilitate periodic update. It is recommended that such plans be completed as insights would be obtained on more current conditions than 1978 and extensive knowledge would be obtained on county-by-county changes that are occurring across the state of Kansas.

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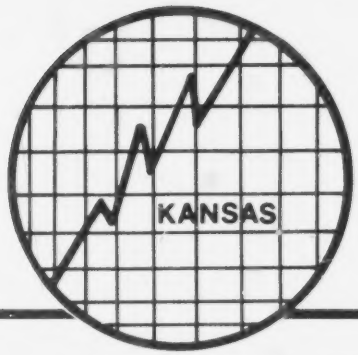
The Kansas Economy



General Business

The past few years have been a humbling experience for economic forecasters. One of the results has been a diminished sense of certainty when forecasters point to the expected future. A second result has been a breakdown in the "pack" discipline which has, in the past, meant that most forecasters have pointed in the same direction. Now, several "packs" have developed, all pointing in different directions or pointing in the same direction for different reasons. With such diversity of opinion, with economists ranged across the field of economic possibilities, it would seem that little new of a shocking nature could develop. Then came the preliminary estimates for the GNP's first quarter growth rate—a 6.6 percent increase in real terms on an annual basis. Very few economists expected that large a surge in GNP, and as they were scratching their heads trying to explain what seemed an unexpected, temporary aberration, the Commerce Department revised the estimated first quarter real GNP growth rate upward—8.4 percent on an annual basis.

Now seems to be an appropriate time to check the playing field of economic forecasters and separate those still playing from the red-faced deserters. There are respected economists on Wall Street who contend that the first quarter GNP figures are not an aberration, that, in fact, forecasters have consistently underestimated the underlying strength of the economy. These economists see inflationary forces building, forcing the Fed to react to the inflationary pressures either by expanding the money supply or holding the line on the money supply thereby causing interest rates to shoot up again. In contrast to these economists, there are traditional Keynesian economists who treat the first quarter GNP figures as a deviation. They argue that the economy is moving at a sluggish rate; thus, both interest rates and inflation rates will drop in the next couple of quarters. Another "pack" of players still on the field are the monetarists. Their view is that because the Fed tightened the money supply near the end of 1980, the coming quarters will have slow growth with a decline in inflation rates. There are other monetarists of a more pessimistic stamp who contend that the Fed's severe tightening of the money supply last year will cause a recession in the middle quarters of this year.

Although there is nothing like the consensus that previously existed, most forecasters do not expect the second quarter's growth rate to be anywhere near the first quarter's. In fact, there is already evidence gathered to show a spring slump. Personal income rose by 0.6 percent in April, which was the slowest rate of growth since May 1980. However, the 1981 version of the "spring slump" should be much milder than the 1979 and 1980 versions.

The first quarter of 1981 represents a possible turnaround for the Kansas economy. The Kansas economy performed sluggishly in 1980, although well above the level of the national economy. The first quarter of 1981 saw initial claims for unemployment drop 16.7 percent below the level of the first quarter of 1980. This phenomenon is in direct contrast to the 1980 performance of the Kansas economy when each quarter's initial claims for unemployment were up significantly over the previous year's. Another sign of rebound on the part of the Kansas economy was the significant gain registered in the average work week from first quarter 1980 to first quarter 1981. There have been other good signs for the Kansas economy such as the lifting of the grain embargo against the Soviet Union. And finally, the shifting away from social programs toward military expenditures in the Reagan budget should help more than hurt the Kansas economy. One aspect of the Reagan package that could hurt the Kansas economy is the desire to move away from farm subsidy. However, on the whole, the future of the Kansas economy looks brighter today than it did a year ago.

Employment

Although total nonfarm wage and salary employment for Kansas in March 1981 was below the March 1980 figure, it was only slightly below the March 1980 figure, an 0.2 percent drop, and this is a hopeful sign. For nearly a year, Kansas employment has been running consistently below the level of the year previous. The March 1981 figure represents a significant closing of the gap.

In the past, the major cause for the drop in Kansas employment has been the manufacturing sector, specifically the durable goods sector. This sector continued to compare poorly with its performance a year ago: manufacturing employment was down 7.1 percent and durable goods manufacturing employment was down 9.5 percent. The one manufacturing sector which appears to be doing well is the petroleum and coal production industry. However, the first quarter 1980 figures for employment in this industry were artificially low due to some temporary layoffs. If March 1981 figures are compared to December 1979 or April 1980, then there has been little actual change in employment in this industry.

The lag in manufacturing employment was nearly made up for by the steady growth of most of the other major industries. The industry showing

the largest percentage growth from a year ago was mining (9.6 percent), and nearly all of its growth was in the oil and gas extraction sector (11.8 percent). This growth in employment reflects the large increase in oil prices over the past few years which have made formerly marginal wells profitable. The only other major industry besides manufacturing to experience a significant decline since a year ago was contract construction (5.6 percent). The drop in employment in contract construction is due almost entirely to the high interest rates of the past few years.

Statewide, the Kansas unemployment figure dropped below the 4.0 percent level in March—further evidence for a turnaround in the Kansas economy. The unemployment rate for March 1980 was slightly lower than for March 1981; however, this gap is also closing. This same pattern was also apparent in most of the regional statistics supplied to *KBR* by the Research Division of the Department of Human Resources. The one regional area which had a much higher rate of unemployment in March 1981 than in March 1980 was Reno County (Hutchinson). This was in large part due to the closing of an aircraft factory there last year.

Retail Sales

Nationally, retail sales rose 0.4 percent in March but then declined in April 1.0 percent, the first monthly decline since May 1980. Kansas retail sales were stronger for the first quarter of 1981 than for the fourth quarter of 1980. However, if the first quarter of 1981 is compared to the first quarter of 1980, a different story emerges. Although retail sales were up 3.3 percent over this period, if inflation is taken into account, there was nearly a 10 percent decline in retail sales over this period. And although first quarter 1981 was stronger than fourth quarter 1980, the March figures for retail sales indicate that retail sales are softening. Retail sales for apparel were down over 30 percent from the average of the three previous months, and furniture sales were down over 20 percent from the average of the three previous months.

The western half of Kansas experienced more growth in retail sales over the past year than the eastern half of Kansas. In western Kansas, the two leading retail trade centers which did well were Finney County (Garden City) and Ellis County (Hays). The major retail trade centers in Kansas, all of which are located in the eastern half of the state, experienced growth of between 0 and 5.0 percent over the past year (Sedgwick County, 3.2 percent; Shawnee County, 0.8 percent; Wyandotte County, 0.5 percent; and Johnson County, 2.5 percent). However, if inflation is taken into account, then these modest increases were actually significant drops in retail trade.

Farm Prices

The farm situation in Kansas has become difficult to assess in the past month due to the heavy amounts of rain and scattered frost received in parts of Kansas. The abundant moisture will help some crops, but it could damage others—for example, wheat. This apprehension because of the weather must be balanced with the report by the Department of Agriculture of record plantings this year. Finally, Kansas farmers probably will benefit from the lifting of the grain embargo to the Soviet Union: certainly it will broaden the direct market for Kansas grain production, and it may have some effect on prices.

Prices Kansas farmers received for field crops generally dropped slighly in March as the effects of last year's drought ease somewhat. However, the fact that March 1981 prices are significantly higher than a year ago indicates that the drought is still affecting prices, particularly hay prices. Calves and beef cattle prices also fell in March and remained significantly below last year's prices. Hog prices also dropped in March but were up nearly 20 percent above a year ago—indicating more how bad last year was than how good this year is. The prices paid by farmers for feed charged little in March but are still running ahead of the inflation rate for the past year except for hog concentrate.

Financial Activity

After over a year and a half of the Fed experimenting with a monetarist approach to monetary policy, two criticisms of this strategy made long ago by Keynesian economists are proving initially to have some validity. First, as Keynesians predicted, controlling the money supply is much more difficult than it sounds in textbooks: a slow steady growth rate for the monetary aggregates is a worthy goal, but the Fed still seems to be searching for a way to make that goal a reality. Second, the Fed warned that interest rates would be slightly more volatile, but Keynesians have always said that they would be extremely volatile if all the Fed did were to concern itself with monetary aggregates. Interest rates have certainly become volatile, and, as Keynesians argued, this effect has created a new element of uncertainty for business to concern itself with. And, instead of allowing businesses to focus on long-run capital investment, the instability has placed a premium on short-run money management.

The most striking aspect of the Kansas banking statistics for March is the fact that loans were up only slighly above the previous year, and, if inflation is taken into account, then loans were actually below last year's level by about 10 percent. Also, the loan-to-deposit retio was below the level of a year ago.

The situation for savings and loan institutions continues to oscillate between bad and worse. In March, mortgage loans made registered slight increases, although they remained well below the levels of a couple of years ago. The worse news was that in March Kansas savings and loans experienced negative savings.

TABLE I
GENERAL BUSINESS INDICATORS

	Mar. 1981	Feb. 1981	% change	Avg. Prior 6 mos.	Annual Avg. 1980
Manufacturing					
Average Work Week (hrs.)	40.80	39.70	2.8	41.00	40.40
Average Weekly Earnings (dollars)	313.75	307.25	2.1	313.03	0.0
Initial Claims for Unemployment Insurance	9,506.00	11,536.00	-17.6	11,291.00	13,811.00
New Incorporations					
In State For Profit	460.00	432.00	6.5	416.00	425.00
Out-of-State For Profit	129.00	124.00	4.0	119.00	99.00

Source: Research and Analysis Section
Division of Staff Services
Kansas Department of Human Resources

Kansas Secretary of State

TABLE II
NON-FARM WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

(thousands)

Industry	Mar. 1981	Feb. 1981	% change	Mar. 1980	% change
All Industries	950.2	942.6	0.8	952.3	-0.2
Manufacturing	185.9	185.1	0.4	200.1	-7.1
Durable Goods	119.6	119.0	0.5	132.2	-9.5
Stone, Clay, Glass	7.2	7.0	2.9	7.8	-7.7
Primary Metals	3.5	3.8	-7.9	4.2	-16.7
Fabricated Metal Products	12.0	12.0	0.0	13.9	-13.7
Machinery (incl. elec.)	33.9	33.7	0.6	38.0	-10.8
Transportation Equipment	50.7	50.6	0.2	56.1	-9.6
Aircraft & Parts	43.0	43.2	-0.5	45.7	-5.9
Other Durable Goods	12.3	11.9	3.4	12.2	0.8
Nondurable Goods	66.3	66.1	0.3	67.9	-2.4
Food & Kindred Products	22.7	22.9	-0.9	23.2	-2.2
Meat Products	8.8	9.1	-3.3	9.7	-9.3
Apparel	3.3	3.2	3.1	3.6	-8.3
Printing & Publishing	16.6	16.4	1.2	17.4	-4.6
Chemicals	8.7	8.7	0.0	9.0	-3.3
Petroleum & Coal	4.9	4.9	0.0	3.3	48.5
Other Nondurable	10.1	10.0	1.0	11.4	-11.4
Mining	16.0	15.9	0.6	14.6	9.6
Oil & Gas Extraction	14.2	14.1	0.7	12.7	11.8
Contract Construction	40.8	38.4	6.3	43.2	-5.6
Trans., Comm., Elec., Gas	64.4	64.0	0.6	64.4	0.0
Wholesale Trade	65.2	64.8	0.6	64.3	1.4
Retail Trade	160.8	158.7	0.8	159.0	1.2
Finance, Insurance, Real Estate	47.0	46.8	0.4	46.6	0.9
Services	175.3	174.0	0.7	168.5	4.0
Federal Government	26.2	26.2	0.0	26.3	-0.4
State & Local Government	168.5	167.7	0.5	165.3	1.9

Source: Research and Analysis Section
Division of Staff Services
Kansas Department of Human Resources

TABLE III
EMPLOYMENT—UNEMPLOYMENT DATA FOR KANSAS, STATE AND AREAS

Area	Mar. 1981	Feb. 1981	% change	Mar. 1980	% change
Kansas -- Statewide					
Civilian Labor Force	1,204,900	1,196,800	0.7	1,209,700	-0.4
Employed	1,156,900	1,146,000	1.1	1,167,100	-0.7
Farm	56,600	52,000	8.8	57,800	-2.2
Non-Farm	1,102,300	1,094,000	0.8	1,109,200	-0.6
Unemployed	48,000	50,800	-9.4	42,600	8.0
Rate	3.8%	4.2%		3.5%	
Lawrence SMSA					
Civilian Labor Force	35,100	35,100	0.0	35,600	-1.4
Employed	33,700	33,500	0.6	34,200	-1.5
Farm	700	500	16.7	700	0.0
Non-Farm	33,000	32,900	0.3	33,500	-1.5
Unemployed	1,400	1,600	-12.5	1,400	0.0
Rate	4.0%	4.6%		3.9%	
Kansas Portion of Kansas City SMSA					
Civilian Labor Force	266,700	267,200	-0.2	265,500	0.5
Employed	254,700	253,700	0.4	255,000	-0.1
Farm	1,200	1,100	9.1	1,200	0.0
Non-Farm	253,500	252,600	0.4	253,800	-0.1
Unemployed	12,000	13,500	-11.1	10,500	14.3
Rate	4.5%	5.1%		4.0%	
Topeka SMSA					
Civilian Labor Force	94,300	94,200	0.1	94,500	-0.2
Employed	89,600	88,800	0.9	90,100	-0.6
Farm	1,700	1,500	13.3	1,700	0.0
Non-Farm	87,900	87,300	0.7	88,400	-0.5
Unemployed	4,700	5,400	-13.0	4,400	6.8
Rate	5.0%	5.7%		4.7%	
Wichita SMSA					
Civilian Labor Force	225,300	223,500	0.8	225,800	-0.2
Employed	216,900	214,900	0.9	218,300	-0.6
Farm	2,300	2,100	9.5	2,400	-4.2
Non-Farm	214,600	212,800	0.8	215,900	-0.6
Unemployed	8,400	8,700	-3.4	7,500	12.0
Rate	3.7%	3.9%		3.3%	
Barton Co. -- Great Bend Area					
Civilian Labor Force	18,200	18,125	0.4	17,850	2.0
Employed	17,675	17,700	-0.1	17,425	2.6
Farm	625	775	-6.5	850	-2.9
Non-Farm	17,050	16,925	0.7	16,575	2.9
Unemployed	525	425	23.5	425	23.5
Rate	1.8%	2.3%		2.4%	
Crawford Co. -- Pittsburg Area					
Civilian Labor Force	16,725	16,800	-0.4	16,825	-0.6
Employed	15,825	15,825	0.0	16,050	-1.4
Farm	750	700	7.1	775	-3.2
Non-Farm	15,075	15,125	-0.3	15,275	-1.3
Unemployed	900	975	-7.7	775	16.1
Rate	5.4%	5.8%		4.6%	
Lyon Co. -- Emporia Area					
Civilian Labor Force	17,725	17,575	0.9	17,775	-0.3
Employed	16,950	16,725	1.3	17,150	-1.2
Farm	750	675	11.1	750	0.0
Non-Farm	16,200	16,050	0.9	16,400	-1.2
Unemployed	775	850	-8.8	625	24.0
Rate	4.4%	4.8%		3.5%	

TABLE III
EMPLOYMENT—UNEMPLOYMENT DATA FOR KANSAS, STATE AND AREAS (Continued)

Area	Mar. 1981	Feb. 1981	% change	Mar. 1980	% change
Montgomery Co. -- Coffeyville Area					
Civilian Labor Force	21,375	21,175	0.9	21,525	-0.7
Employed	20,600	20,275	1.6	20,775	-0.8
Farm	550	500	10.0	550	0.0
Non-Farm	20,050	19,775	1.4	20,225	-0.9
Unemployed	775	900	-13.9	750	3.3
Rate	3.6%	4.3%		3.5%	
Reno Co. -- Hutchinson Area					
Civilian Labor Force	30,300	30,400	-1.3	32,150	-5.7
Employed	28,225	28,450	-0.8	31,000	-9.0
Farm	1,175	1,100	6.8	1,225	-4.1
Non-Farm	27,050	27,350	-1.1	29,775	-9.2
Unemployed	1,775	1,950	-9.0	1,150	54.3
Rate	5.9%	6.4%		3.6%	
Riley Co. -- Manhattan Area					
Civilian Labor Force	21,575	21,625	-0.2	21,750	-0.8
Employed	20,725	20,650	0.4	20,850	-0.6
Farm	950	875	8.6	975	-2.6
Non-Farm	19,775	19,775	0.0	19,875	-0.5
Unemployed	850	975	-12.8	900	-5.6
Rate	3.9%	4.5%		4.1%	
Saline Co. -- Salina Area					
Civilian Labor Force	26,475	26,400	0.3	26,700	-0.8
Employed	25,275	25,100	0.7	25,575	-1.2
Farm	625	575	8.7	650	-3.8
Non-Farm	24,650	24,525	0.5	24,925	-1.1
Unemployed	1,200	1,300	-7.7	1,125	6.7
Rate	4.5%	4.9%		4.2%	

Source: Research and Analysis Section
Division of Staff Services
Kansas Department of Human Resources

TABLE IV
RETAIL SALES SUBJECT TO SALES TAX BY BUSINESS CLASSIFICATION

(millions of dollars)

Business Classification	Mar.* 1981	Dec.* 1981	% change	Mar.* 1980	% change
Apparel	35.8	31.5	13.7	36.5	-1.9
Automotive	184.2	200.9	-8.3	181.2	1.7
Food	263.0	249.1	5.6	248.8	5.7
Furniture	47.0	44.9	4.7	48.0	-2.1
General Merchandise	176.7	151.5	16.6	186.3	-5.2
Lumber and Building Materials	86.3	94.0	-8.2	86.8	-0.6
Professional and Personal Service	45.6	46.3	-1.5	42.2	8.1
Public Utilities	54.3	52.5	3.4	45.5	19.3
Unclassified	101.7	106.1	-4.1	98.1	3.7
Farm and Garden Products	1.0	1.0	0.0	1.0	0.0
Manufacturing and Trading	88.2	90.4	-2.4	77.7	13.5
Miscellaneous	5.4	3.1	74.2	2.6	107.7
Total	1089.1	1072.0	1.7	1055.3	3.3

* Monthly Average for Prior Three Months

Source: Tax Research Section
Kansas Department of Revenue

TABLE V
RETAIL SALES SUBJECT TO SALES TAX BY COUNTY

(thousands of dollars)

County	Sales * Mar. 1981	Sales * Dec. 1980	Change From Dec. 1980 (%)	Sales * Mar. 1980	Change From Mar. 1980 (%)
Allen	5,455	5,091	7.1	5,457	0.0
Anderson	2,128	2,087	2.0	2,490	-14.5
Atchison	5,161	4,659	10.8	4,981	3.6
Barber	2,716	2,519	7.8	2,515	8.0
Barton	33,608	29,242	14.9	25,549	31.5
Bourbon	5,316	5,453	-2.5	5,561	-4.4
Brown	3,456	3,278	5.4	3,527	-2.0
Butler	17,733	17,018	4.2	15,474	14.6
Chase	721	854	-15.6	724	-0.5
Chautauqua	1,567	1,418	10.5	1,152	36.0
Cherokee	4,114	4,071	1.1	4,381	-6.1
Cheyenne	1,528	1,423	7.4	1,534	-0.4
Clark	603	622	-3.1	640	-5.8
Clay	2,984	2,849	4.7	3,332	-10.5
Cloud	4,634	4,289	12.7	4,957	-2.5
Coffey	1,926	2,229	-13.6	2,358	-18.3
Comanche	673	648	3.8	595	13.2
Cowley	15,767	13,053	20.8	14,210	11.0
Crawford	12,981	12,264	3.4	12,677	0.0
Decatur	1,836	1,746	5.1	1,564	17.4
Dickinson	5,619	5,636	-0.3	6,027	-6.8
Doniphan	1,878	1,975	-4.9	1,700	10.5
Douglas	24,756	23,064	7.3	23,422	5.7
Edwards	1,197	1,149	4.2	1,061	12.9
Elk	593	624	-4.9	673	-11.8
Ellis	16,382	13,836	18.4	13,624	20.2
Ellsworth	1,777	1,942	-8.5	1,776	0.1
Finney	18,562	15,872	16.9	16,035	15.8
Ford	16,085	14,116	13.9	15,206	5.8
Franklin	6,479	6,093	6.3	7,222	-10.3
Geary	9,675	7,884	22.7	8,469	14.2
Gove	1,351	1,317	2.6	1,294	4.4
Graham	1,933	1,874	3.2	1,647	17.4
Grant	4,202	3,609	16.4	3,726	12.8
Gray	1,771	2,088	-15.2	1,710	3.5
Greeley	533	647	-17.6	480	11.1
Greenwood	3,175	2,956	7.4	2,760	15.0
Hamilton	628	695	-9.6	744	-15.7
Harper	3,078	2,888	6.6	3,008	2.4
Harvey	10,144	8,676	16.9	10,440	-2.8
Haskell	1,093	1,335	-18.2	990	10.4
Hodgeman	358	366	-2.4	397	-9.8
Jackson	2,216	2,125	4.3	2,307	-3.9
Jefferson	2,379	3,331	-28.6	3,276	-27.4

* Monthly Average for Prior Three Months

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TABLE V
RETAIL SALES SUBJECT TO SALES TAX BY COUNTY (Continued)
(thousands of dollars)

County	Sales Mar. 1981	Sales Dec. 1980	Change From Dec. 1980	Sales Mar. 1980	Change From Mar. 1980
Jewell	1,013	1,048	-3.3	790	28.2
Johnson	116,294	120,918	-3.8	102,811	13.1
Kearny	861	754	14.2	689	24.9
Kingman	2,908	2,925	-0.6	2,581	12.7
Kiowa	1,419	1,434	-1.0	1,249	13.6
Labette	8,335	7,704	8.2	8,261	0.9
Lane	760	679	11.9	705	7.8
Leavenworth	52,830	51,755	2.1	51,839	1.9
Lincoln	1,471	1,113	32.2	1,095	34.3
Linn	1,819	1,648	10.4	1,750	3.9
Logan	1,621	1,636	-0.9	1,584	2.3
Lyon	15,643	13,462	16.2	13,900	12.6
McPherson	10,572	10,113	4.5	10,203	3.6
Marion	3,704	3,502	5.8	3,458	7.1
Marshall	4,196	3,725	12.6	4,006	4.8
Meade	1,449	1,320	9.7	1,410	2.8
Miami	8,561	8,017	6.8	8,492	0.8
Mitchell	1,836	1,476	24.4	1,715	7.1
Montgomery	14,715	14,269	3.1	13,909	5.8
Morris	1,395	1,361	2.5	1,411	-1.1
Morton	1,436	1,314	9.4	1,275	12.6
Nemaha	3,078	3,258	-5.5	3,574	-13.9
Neosho	9,392	9,411	-0.2	8,419	11.6
Ness	2,370	2,329	1.8	1,890	25.4
Norton	2,443	2,248	8.7	2,237	9.2
Osage	2,810	2,908	-3.4	3,114	-9.7
Osborne	1,805	1,807	-0.1	1,678	7.6
Ottawa	1,156	1,167	-0.9	1,043	2.3
Pawnee	3,970	3,983	-0.4	3,459	14.8
Phillips	2,852	2,833	0.6	2,552	3.7
Pottawatomie	5,078	4,899	8.7	4,398	15.5
Pratt	6,014	4,817	24.9	5,291	13.6
Rawlins	1,134	1,142	-0.7	961	17.9
Reno	31,670	27,196	16.4	31,674	0.0
Republic	2,364	2,319	2.0	2,091	13.0
Rice	3,666	3,393	8.1	3,116	17.7
Riley	16,484	14,804	10.5	16,881	-2.1
Rooks	3,474	3,411	2.0	3,601	-3.5
Rush	1,552	1,515	2.5	1,337	16.1
Russell	3,467	3,659	-5.4	5,461	-20.1
Saline	29,313	28,479	3.0	28,070	4.4
Scott	2,816	2,525	11.5	2,475	13.8
Sedgwick	215,337	198,796	8.3	204,570	5.2
Seward	14,634	12,079	22.6	12,319	20.4
Shawnee	75,029	67,559	11.1	78,837	-4.8
Sheridan	1,232	1,360	-9.4	1,104	11.5
Sherman	4,502	4,370	3.0	4,056	11.0
Smith	1,796	1,774	1.2	1,768	1.6
Stafford	1,948	1,747	11.5	1,676	16.2
Stanton	768	831	-7.6	770	-0.3
Stevens	1,683	1,521	10.6	1,621	10.1
Sumner	6,576	6,663	-1.3	6,545	0.5
Thomas	4,418	3,848	14.8	4,489	-1.6
Trego	1,439	1,423	1.1	1,224	17.6
Wabaunsee	942	993	-5.1	995	-5.3
Wallace	647	721	-10.3	551	17.4
Washington	1,782	2,237	-20.3	2,229	-20.0
Wichita	1,730	1,884	-8.2	855	102.3
Wilson	2,971	2,668	11.4	2,745	8.2
Woodson	1,102	965	14.2	1,065	3.5
Wyandotte	60,830	62,301	-2.4	60,520	0.5

Source: Tax Research Section
Kansas Department of Revenue

TABLE VI
PRICES RECEIVED BY KANSAS FARMERS
(dollars)

Items	Mar. 1981	Feb. 1981	% change	Mar. 1980	% change	Annual Avg. 1980
Prices Received by Farmers						
Field Crops						
Wheat (bu.)	3.83	3.96	-3.3	3.48	10.1	3.75
Corn (bu.)	3.31	3.38	-2.1	2.47	34.0	2.85
Sorghum (cwt.)	5.05	5.11	-1.2	3.83	31.9	4.55
Hay (ton)	70.00	71.50	-2.1	47.00	48.9	54.92
Soybeans (bu.)	7.13	7.06	1.0	5.56	28.2	6.64
Livestock & Products						
Beef Cattle (cwt.)	59.70	62.80	-4.9	69.20	-13.7	64.73
Calves (cwt.)	67.80	71.40	-5.0	80.50	-15.8	75.86
Hogs (cwt.)	36.50	41.10	-11.2	32.10	13.7	37.92
Lambs (cwt.)	55.80	54.20	3.0	67.50	-17.3	63.66
Sheep (cwt.)	26.50	25.80	2.7	24.70	7.3	22.77
Milk (cwt.)	14.10	14.30	-1.4	12.80	10.2	13.05
Prices Paid by Farmers						
Soybean Meal (cwt.)	14.00	14.00	0.0	12.00	16.7	12.58
Bran (cwt.)	9.30	9.40	-1.1	8.20	13.4	8.30
Beef Conc. (cwt.)	12.00	12.00	0.0	10.00	20.0	10.41
16% Dairy Feed (ton)	196.00	200.00	-2.0	161.00	21.7	174.58
Hog Conc. (cwt.)	15.50	15.60	-0.6	14.50	6.9	14.65
Laying Feed (ton)	230.00	235.00	-2.1	189.00	21.7	200.75

Source: Kansas Crop and Livestock Reporting Service
Kansas State Board of Agriculture

U.S. Department of Agriculture

TABLE VII
COMMERCIAL BANKING ACTIVITY FOR ALL BANKS
(millions of dollars)

	Mar. 1981	Feb. 1981	% change	Mar. 1980	% change
Kansas—Statewide					
Loans	8,159	8,159	0.0	7,984	2.2
Demand Deposits	3,465	3,540	-2.1	3,811	-9.1
Time & Saving Deposits	10,149	10,153	-0.0	8,839	14.8
Loan to Deposit Ratio	59.5%	59.8%		63.1%	
Kansas City (Wyandotte)					
Loans	481	481	0.0	503	-4.4
Demand Deposits	188	194	-3.1	201	-6.5
Time & Saving Deposits	676	662	2.1	610	10.8
Loan to Deposit Ratio	59.8%	60.4%		62.0%	
Topeka (Shawnee)					
Loans	467	480	-2.7	500	-6.6
Demand Deposits	253	262	-3.4	285	-11.2
Time & Saving Deposits	462	446	3.6	524	-11.8
Loan to Deposit Ratio	65.3%	67.8%		61.8%	
Wichita (Sedgwick)					
Loans	1,240	1,240	0.0	1,185	4.6
Demand Deposits	770	763	0.9	797	-3.4
Time & Saving Deposits	1,278	1,298	-1.5	1,141	12.0
Loan to Deposit Ratio	60.5%	60.8%		61.1%	

Source: Research Department
Federal Reserve Bank of Kansas City

Institute for Economic and Business Research

TABLE VII-I
COMMERCIAL BANKING ACTIVITY FOR MEMBER BANKS
(millions of dollars)

	Mar. 1981	Feb. 1981	% change	Mar. 1980	% change
Kansas—Statewide					
Loans	3,674	3,674	0.0	3,595	2.2
Demand Deposits	1,781	1,804	-2.4	1,937	-9.1
Time & Saving Deposits	4,448	4,400	1.0	3,836	16.0
Loan to Deposit Ratio	59.2%	59.2%		62.3%	
Kansas City (Wyandotte)					
Loans	200	200	0.0	209	-4.3
Demand Deposits	96	98	-2.1	101	-5.9
Time & Saving Deposits	225	221	2.0	224	0.9
Loan to Deposit Ratio	62.3%	62.7%		64.3%	
Topeka (Shawnee)					
Loans	247	254	-2.8	264	-6.4
Demand Deposits	164	170	-3.5	185	-11.4
Time & Saving Deposits	244	236	3.4	277	-11.9
Loan to Deposit Ratio	60.5%	62.6%		57.1%	
Wichita (Sedgwick)					
Loans	710	715	-0.7	679	4.6
Demand Deposits	464	460	0.9	450	3.3
Time & Saving Deposits	631	641	-1.6	563	12.1
Loan to Deposit Ratio	64.8%	64.9%		65.1%	

Source: Research Department
Federal Reserve Bank of Kansas City

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TABLE VIII
SAVINGS AND LOAN ACTIVITY
(thousands of dollars)

	Mar. 1981	Feb. 1981	% change	Mar. 1980	% change
Net New Savings	19,000	1,900	1100.0	32,453	-159.1
Mortgage Loans Made	61,000	41,000	48.8	53,004	15.1

Source: Federal Home Loan Bank of Topeka